FILMATION

DIVISION OF GROUP W PRODUCTIONS / WESTINGHOUSE BROADCASTING AND CABLE, INC
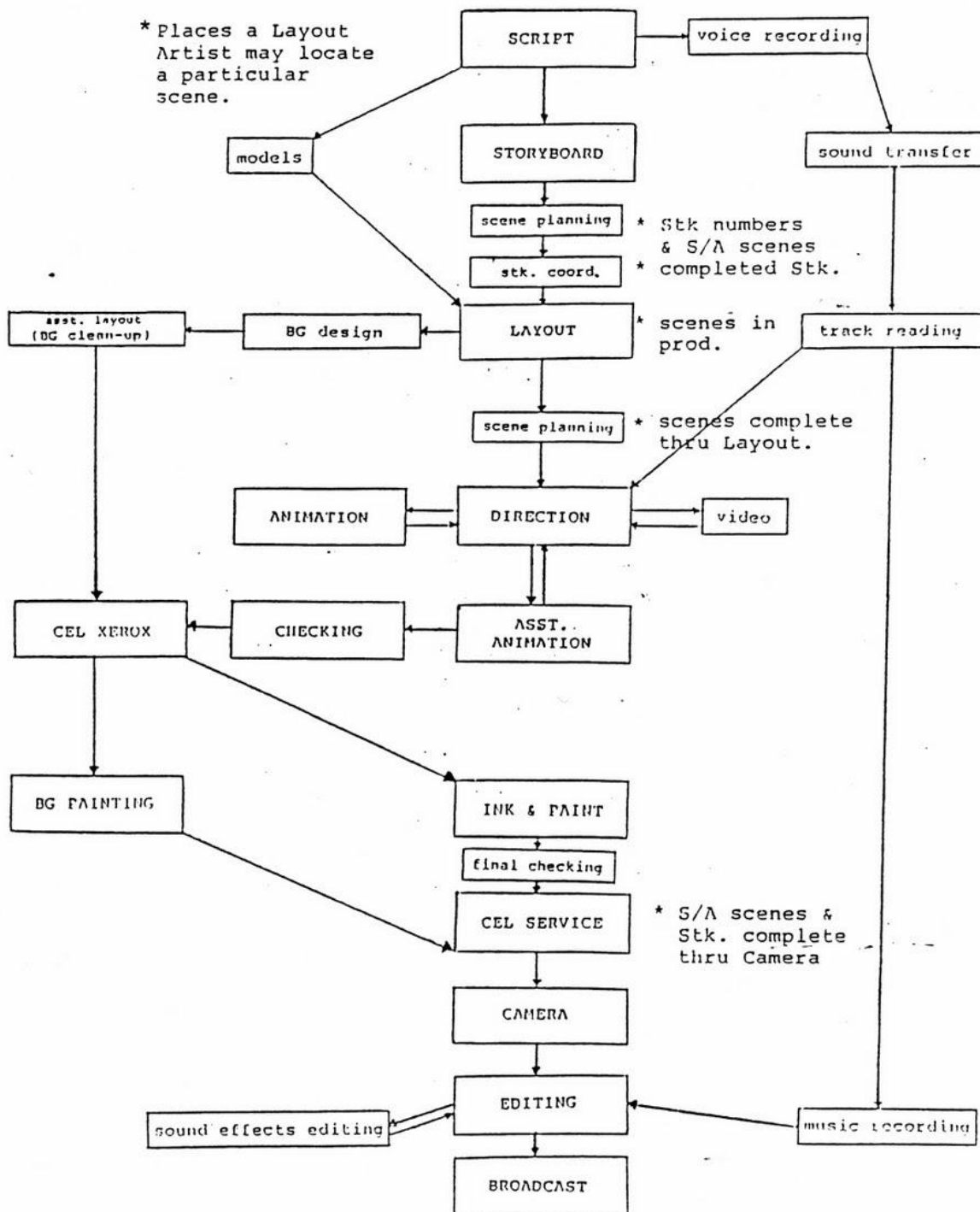
Dan Mills

Layout

FILMATION LAYOUT MANUAL

THIS LAYOUT MANUAL IS BASICALLY DESIGNED FOR THE NEW LAYOUT
ARTIST, BUT SHOULD ALSO HELP TO REFRESH THOSE ARTISTS WITH
YEARS OF LAYOUT EXPERIENCE WHO ARE NEW TO THE FILMATION SYSTEM.

PRODUCTION FLOW

* Places a Layout Artist may locate a particular scene.

SCRIPT → voice recording

models

STORYBOARD

sound transfer

scene planning * Stk numbers & S/A scenes
stk. coord. * completed Stk.

asst. layout (BG clean-up) ← BG design ← LAYOUT * scenes in prod.

track reading

scene planning * scenes complete thru Layout.

ANIMATION ⇄ DIRECTION ⇄ video

CEL XEROX ← CHECKING ← ASST. ANIMATION

BG PAINTING

INK & PAINT

final checking

CEL SERVICE * S/A scenes & Stk. complete thru Camera

CAMERA

sound effects editing ⇄ EDITING ← music recording

BROADCAST

STORYBOARD

Starting out with the storyboard you will be given, read the <u>full</u> board, keeping in mind the flow of the story. <u>Understand</u> the important story points and screen direction. Keep the Background Graphics in mind, so the picture has punch and a good flow of visual drama. The most important thing to keep in mind are the <u>Hook-ups</u> from one scene to another, (Hook-ups are the even poses from a full shot to a close-up or mid-shot.)

EXAMPLE: Bill turns from Weird Harold to the kids O.S., (other side) we keep the Characters and backgrounds consistant.

CLOSER ON GANG - LOUNGING...
WEIRD HAROLD
Just'like the old wild west.

CLOSE ON BILL -
BILL
I wonder what we'll do first?

HE TURNS TO O.S SOUND -
RUDY (O.S.)
I'll tell you.

The unit supervisor will be assigning you a section of the storyboard, the section given to you will already be broken down to one section area.

When planning your section, study and understand your assigned section of the picture, look for faults in the screen direction and plan your scenes for the full use of backgrounds. Also watch the board for the use of stock animation whether or not it's called for in the storyboard. Make sure to <u>Communicate</u> with your <u>Supervisor</u> or <u>Director</u> when you add stock elements to a picture.

STORYBOARD IN LAYOUT

Your Supervisor will give you an area where only you will do the graphics, Plan well and save on backgrounds and poses.

EXAMPLE:

FA-83 "The WHISKY KID"
TOTAL SCENES: 279

Bob Doe

SOCCER AREA
1,7A,3,4,5,6,7,8,9,10,12, 13,14,15,16,17,18,
19,20,21,22,23,24,24A,25,26,27,28,29,30,31,
32,33,34,36,38,39,40,41,42,43,44,45,46,47,48,
49,50,51,52,55,56,57,58,59,60,61,62,63,64,65,
66,/187B,188,189,170,191,192,193,194,195,196,
198A, 199,200, 201, 201A,202, 202A, 203,204,
205,206,207,208,209,210,211,212,213,214A,214B,
214C,215

PETERS HOUSE EXT.
53,53A,53B,53C,53D,/177B, 197,198,
PETERS HOUSE INT.
54,54A,548,/170,179,180,181,102,183,184,
185,186,187,187A

CLUBHOUSE EXT.
57
CLUBHOUSE INT.
67A, 149,162A,162B, 162C,163

FOREST (L.E. SEGMENT)
57D,67F,57FF,57G,67H,671,67J,57K,67L,58,
69,70,71,72,73,74,75,76,77,78,79,80,81,
82,83,84,85,86,87,88,89,89A,90,91,92,93,
94,95,96,96A,96B,97,98,99,100,101,102,103,
104,105,106,107,108,109,110,111,113,114,115,
116,117,118,/121,122,122A,123,124,124A,124B,
124C, 124D,125,126,127,128,129,130,131,132,
133,134,135,136,137,137A 137B, 137C,139,140,
141,142,143,144,145,146,147,148,148A, 151,
151A,152,153,154,155,156,157,158,159,160,161,
162

LIQUIOR STORE AREA
164,165,166,167,168,169,170,171,172,173,
174,175,176,177, 177A

STREET
216,217,217A,217B,218,218A
218B,218C,219,219A,219B,219C,220,
220A,220B.

DETENTION HOME
221,222,223,224,225,226,227,227A

HOSPITAL
228,229,230,230,231,232,233,234,235,
236,237,238,240,241,242,243

COMPREHENSION OF STORYBOARD

ANIMATION PLANNING IN LAYOUT

Your Supervisor has assigned you a section on the picture. In this case it's the Interior of the Clubhouse. Stock coordination has stuffed all the stock element into the scene folders.
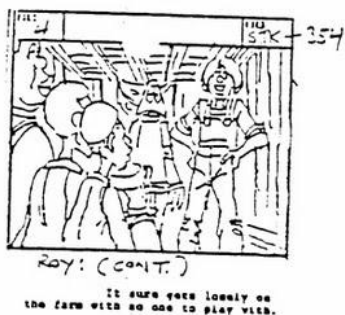
THESE ARE THE STEPS IN LAYOUT

1. Scene 3 is a downshot, your stock background calls for the downshot, these are always hard shots. Stage the Characters for this perspective pose, keeping in mind the truck-in. Truck-in more than three fields.

SCENE 3   STK - 374

TRUCK IN

CUT TO INT. CLUBHOUSE - TRUCK IN ON GANG & THEIR FRIEND
ROY- Thanks, guys. I really enjoyed my vacation.

Roy is standing with his back to Camera, show some action, (a nod) with his head, so we know it's him talking. Make sure the other guys have EYE CONTACT with Roy.

2. Scene 4 is a reverse angle. Make sure the Kids Hook-up with scene 3.

3. Scene 5 is yet one other Hook-up. Cut in close on stock 2025.

STK - 354

ROY: (CONT.)
It sure gets lonely on the farm with no one to play with.

STK 2025 - 372

BILL
When do you go back? ROY
RUSSELL Tomorrow.
I thought you had another week.

COMPREHENSION OF STORYBOARD

4. Scene 6: Make sure the stock of Dumb Donald has EYE CONTACT with Roy.

5. Scene 9: Make sure Donald has a DUMB look on his face when he delivers his dialogue.
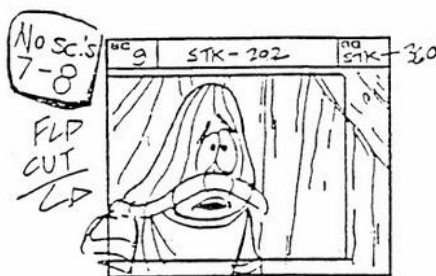
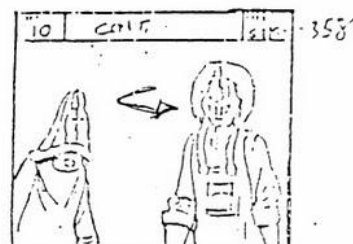6. Scene 10: Roy does not have to turn his head as the board shows, we've cut from a shot of Donald, so he can turn turn to camera for his dialogue.
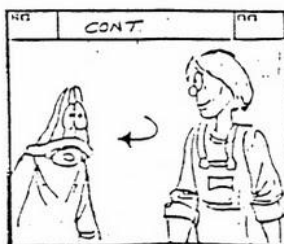
STOCK COORDINATION DEPARTMENT

The Stk. Coordination Department, will stuff all Stock animation, S/A scenes, Backgrounds, Overlays and Underlays into scene folders. Each production is given an assigned color that will coordinate the exposure sheet with the scene folder.

On the front of each folder is a printed chart for all the information. Each Artist will sign his/her scenes. All notes will give the elements for that scene. ANY CHANGES from the original notes, must be changed on the scene folder.

Each Production is given a letter prefix to identify it, and a number to identify it in a series.

The Fourth script for the Fat Albert show is written as: FA-4, as shown in the example.

A. The Scenes are numbered as they are on the Storyboard.

B. Backgrounds are numbered as they are on the Storyboard, UNLESS they are from an earlier scene, then they are numbered for that scene.

C. All Overlays and Underlays are numbered as shown in the example.

D. In most cases all Stock material will be stuffed in the scene folder by the Stock Coordination Department.

E. All Stock Animation will be included in the scene folder.

F. All Same/as material will be shown as " S/A " on the scene folder.

The Stock Coordination Department, will track down any S/A material, be it from shows that are currently in production or shows that are completed and located elsewhere. This is to enable us to keep track of all the scenes and to keep a copy on hand for future use if needed.

EXAMPLE

FILMATION ASSOCIATES

FOOTAGE			CELS
		DATE:	INITIALS
LAYOUT.			JD
ASST. LO.			
DIRECTOR			
ANIMATOR			
ASSISTANT			
VIDEO-TEST			
APPROVED			
CHECKING			
XEROX CH.			
MARK UP			
PAINT			
FX.			
FINAL CH.			
CEL SERV			
CAMERA			
RETAKE			

STOCK #	S/A. MAT.	OL · UL
FA-601	SC 22 FA 2	OL-4 UL-4

PROD.	SC.	B.G.
FA-4	4	4

STOCK COORDINATION DEPARTMENT (cont.)

When the Layout Artist has completed a (temporary) stock scene, it will be routed back thru the Stock Co-ordination Department. It will then be photo-copied and kept on file for future use.

Stock Scenes and Backgrounds are small sketched and pasted up in the Stk. Scene and Background reference books. This process is a reduction of the stock. The small sketch reduction formula is:

3 X 65%   and 1 X 74%

All Layout Supervisors should have a Model Compilation book. These books show you Models of various Characters from previous shows, and are important in that they also contain creatures, crowds of people, weapons etc.,that may prove use-ful to an Artist if you need to whip up a quick "stun gun."

All Model sheets should be ordered from the Xerox Depart-ment.

LAYOUT SCENE PLANNING

A Layout Artist will study the storyboard pages for screen direction, hook-ups, mechanics and use of stock animation.
The Artist will also get the main character models and incidental characters and or props that are important to the picture and study them.

EXAMPLE:
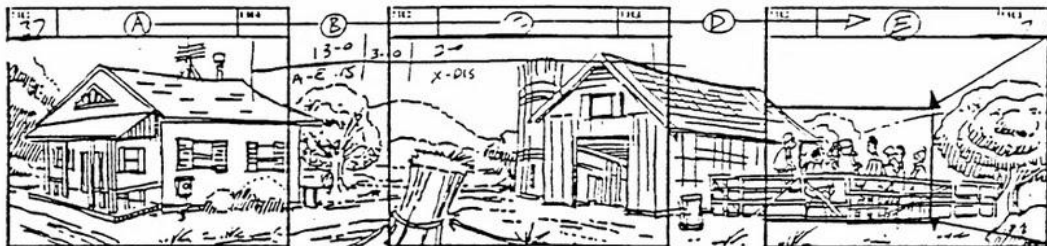
HE PAN ACCROSS THE HIGGENS FARM FROM FARMHOUSE TO BARN TO CORRAL TO FIND THE GANG ...

18-0

CLOSER ON GANG — LOUNGING...
WEIRD HAROLD
Just like the old wild west.
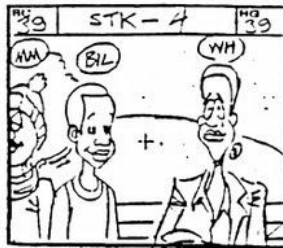
CLOSE ON BILL—
BILL
I wonder what we'll do first?
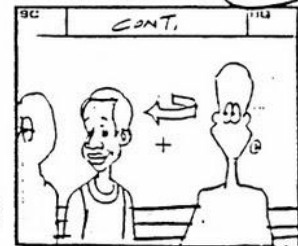
HE TURNS TO O.S. SOUND—
RUDY (O.S.)
I'll tell you.

CLOSE ON RUDY—
RUDY! (CONT.) Work and more work.
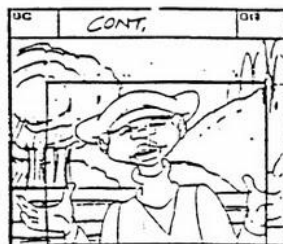
RUDY! (CONT.)
That's all they do on the farm.

FLD. CUT
RUSSELL
Well then, this will be a new experience for you, Rudy.

LAYOUT SCENE PLANNING (cont.)

All Stk. elements such as Stk. 628 in Sc. 40, will be stuffed into your Sc. folder with all the notes needed.

Study Sc. 37 as it is the establishing art. You or the (BG.) Background Artist must do the research on the farm, you must make a strong statment, saying with your graphics that it's a rural farm.

CLOSE ON RUDY —

RUDY! (CONT.) work and more work.

When planning Character posing, try using Field cutting , so you can make better use of the background graphics.

WE PAN ACROSS THE HIGGENS FARM FROM FARMHOUSE TO BARN TO CORRAL TO FIND THE GANG ...

The posing of characters becomes the Layout Artists most important duty.

A. The posing of characters should fit the emotional feeling of the scene, it should tell the story.

B. Any pose should be an extreme pose and should be usable by the Animator. Inbetween action poses are only done on extremely complex movements.

C. Always think in terms of a pose that silhouettes well.

D. The number of poses in a scene is pictured by the action of the story.

EXAMPLE: Give a drawing with Rudy's arms down, and another with his hands up into the scene.

CLOSE ON RUDY —

RUDY! (CONT.) work and more work.
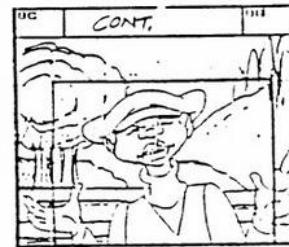
RUDY! (CONT.) That's all they do on the farm.

ALWAYS FOLLOW MODEL SHEETS.

A. Trace and make use of the poses when ever you can.

B. Xerox models up or down if possible, it will simplify your job and save time.
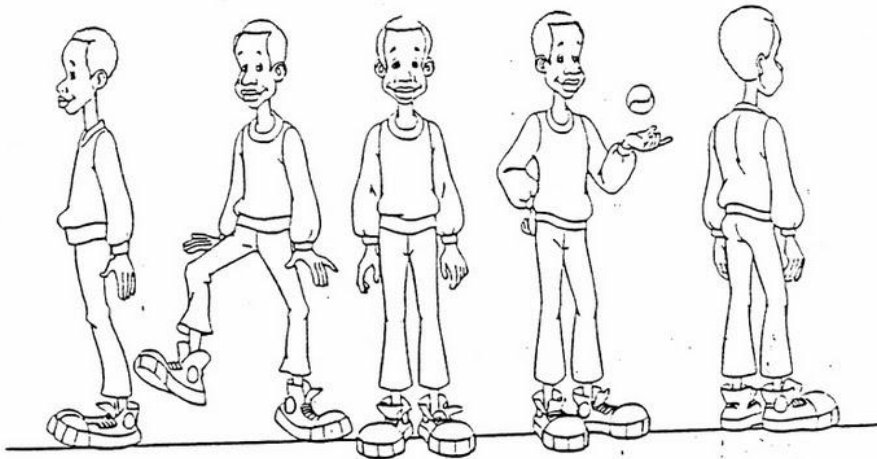
C. Always try to plan for 3/4 head dialogue, if you can do it, DO IT!!! Profile dialogue has to be done with paint backs. This will save on Production Costs in other departments.

EXAMPLE: Number one pose calls for mouth paint backs, Number two pose works within the head.

(1)   (2)   (3)   (4)   (5)
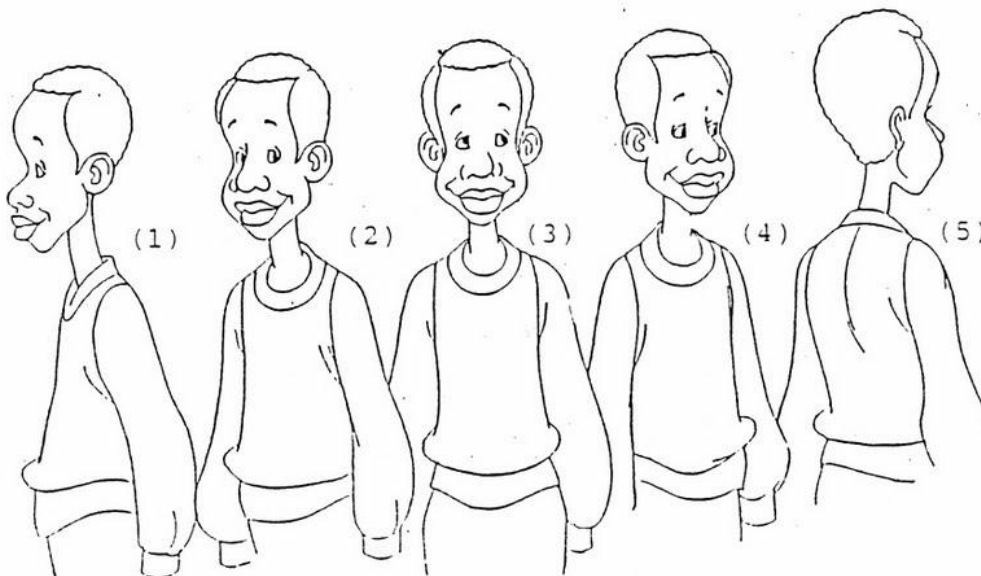
LAYOUT SCENE PLANNING (cont.)

Watch out for BAD TANGENTS, with background graphics, especially when using stock animation and stock backgrounds, there is nothing worse than seeing the tip of a characters nose resting against the side of a tree on the background.

When using stock, always put both elements down on your PEGS to make sure you don't have BAD TANGENTS .

WHEN YOU HAVE BOTH ELEMENTS ON YOUR DRAWING BOARD, ALSO CHECK FOR PERSPECTIVE, MAKING SURE THE HORIZON LINE IS CORRECT.

Also plan your character poses for a FLOP, this means that the animation can be turned over for the opposite action, if it's stock Animation the flop is called "A".

EXAMPLE:

USING FLOP ANIMATION WILL SAVE ON PRODUCTION COSTS LATER, IF THE BOARD CALLS FOR A CHANGE IN SCREEN DIRECTION WITH THE SAME ANIMATION.

ANIMATION PLANNING IN LAYOUT

Here at Filmation we use <u>Limited Animation</u>, not Full Animation that is used in Features. <u>Limited Animation</u> is based in the RE-USE of Art and also what is called <u>CYCLE ANIMATION</u>. In <u>CYCLE ANIMATION</u> the first drawing works back into the last drawing, as in a walk cycle, where the last foot being placed down animates directly into the first foot being lifted up.

EXAMPLE:

(1) (2) (3) (4) (5) (6) (7) (8) (9)

(10) (11) (12) (13) (14) (15) (16)

Back into
(1)
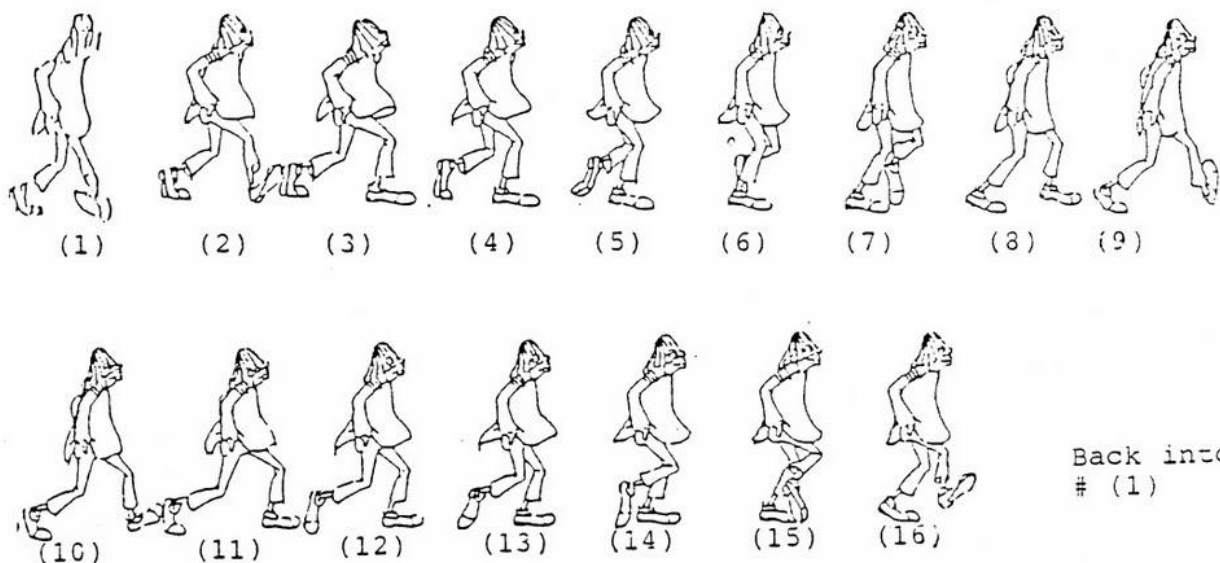
All <u>Animation Elements</u> are on <u>Bottom Pegs</u>. Background Elements are on <u>Top Pegs</u>. Character Animation stays at center screen, while the background moves on top pegs going left.

EXAMPLE:

⊄-CENTER
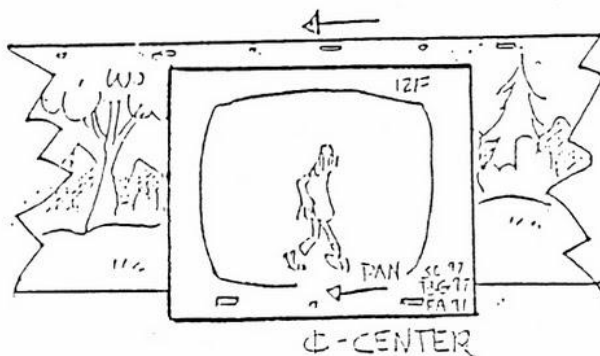
ANIMATION PLANNING IN LAYOUT (cont.)

LONG CELS FOR CYCLE ANIMATION

Animation painted on Cels that are longer than the normal one Field Cels are needed in order that the Cel edge is not seen when a Character or Prop is panned thru the scene. This is when Animation goes from left to right across Academy Field.

EXAMPLE:

Your notes on the layout will look like this.
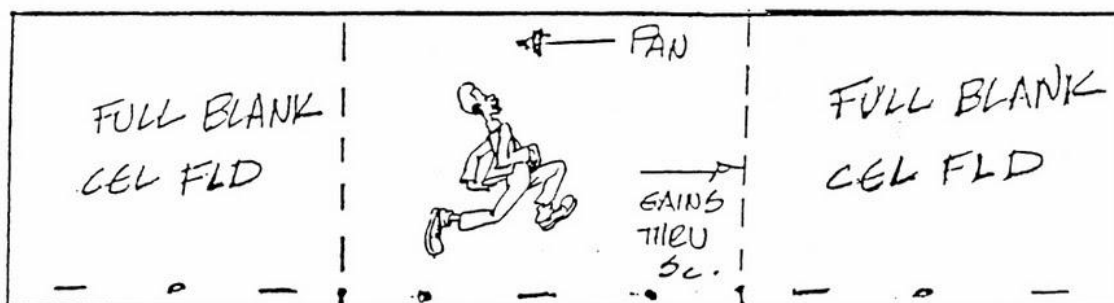
LONG CEL

EXAMPLE:
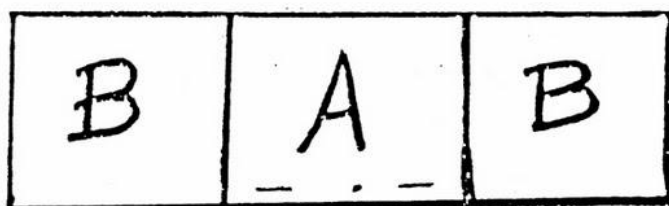
ANIMATION PLANNING IN LAYOUT (cont.)

LONG CELS FOR CYCLE ANIMATION (cont.)

When a car or prop is pulled thru a scene, only the wheels will have a spin effect. A ship will have a wake effect and a smoke effect from the stack.

EXAMPLE:
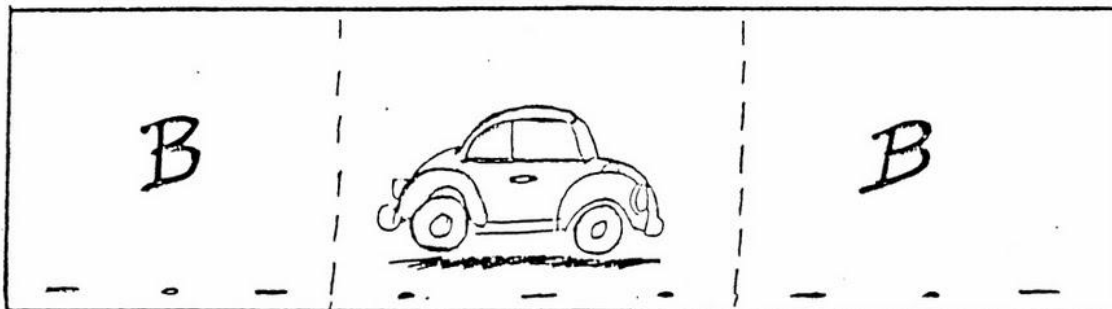
AN ACTION THAT CALLS FOR ONE DIRECTION, IS NOTED LIKE THIS.

EXAMPLE:
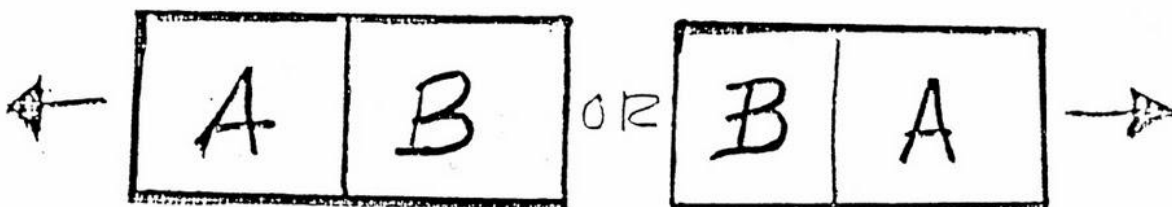
ANIMATION PLANNING IN LAYOUT (cont.)

REGISTRATION

Many times when laying out a scene, it may be necessary
to register an Animated Character to a background.

Registration is an indication to the Animator and to Ink
and Paint that the Character that is moving, will have to Re-
gister to a given area on a background. This means that a draw-
ing will extend to a certain point and stop.
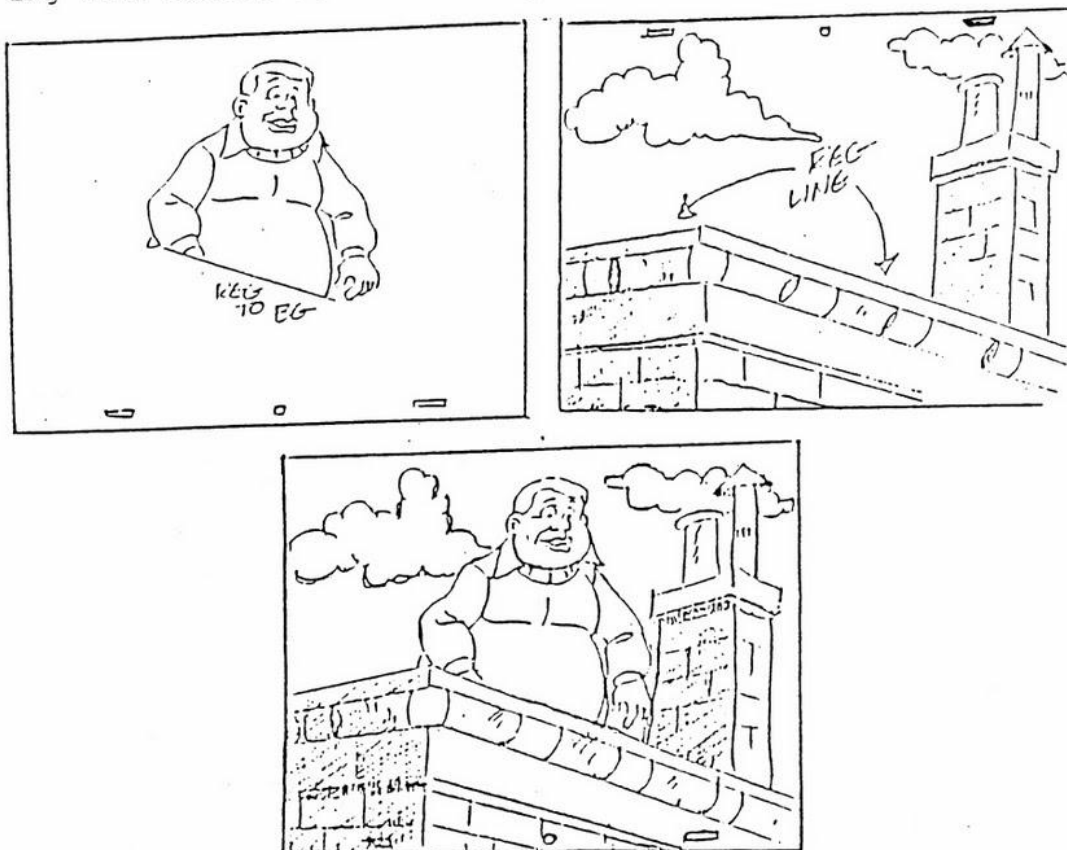
Registration on a background is indicated in RED in a
production that uses a Flat Graphic or Painterly ap-
proach to backgrounds. With a linear style background,
Registration is indicated in BLUE. This is so it can be
noticed, but will not pick-up when the Art is xeroxed on
a Cel.

ANIMATION PLANNING IN LAYOUT (cont.)

REGISTRATION (cont.)

Often instead of Registration, a scene could be de-
signed to use an overlay and no Registration. Count your
Cel levels and decide whether you can do it the Economical
way. This saves on Costly Animation. We have the ability on
some Animation Cameras to pan for North South moves. North-
South is written as N/S.

By attaching a separate set of pegs that move up and
down, a Cameraman can move a Character with no Animation.

RULE: MAXIMUM N/S MOVE IS 6 INCHES.!!

EXAMPLE: N/S Fat Albert up, overlays top pegs, BG's top.
         Start move 6 inches South of (ct.) center.
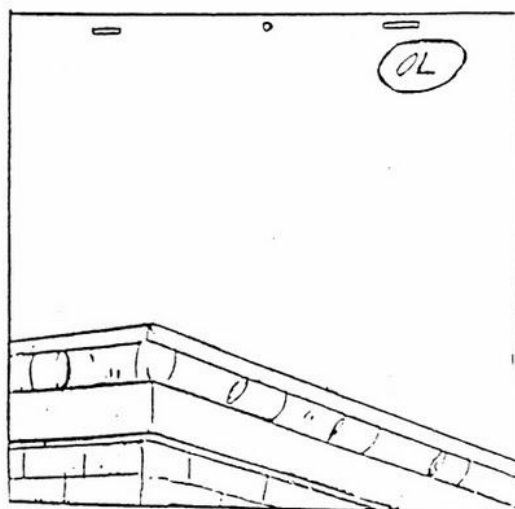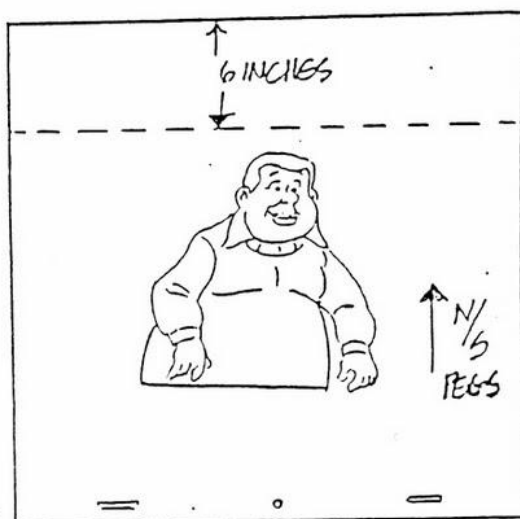
NOTE: USUALLY IN INK AND
         PAINT, N/S CELS ARE
         PAINTED ON 16 FIELD
         CELS.

ANIMATION PLANNING IN LAYOUT (cont.)

N/S MOVES (cont.)

N/S Moves, when the action is dropping into a scene planned like this.

EXAMPLE:
ADD 6 INCHES AT
BOTTOM AND START
MOVE AT CENTER FIELD.
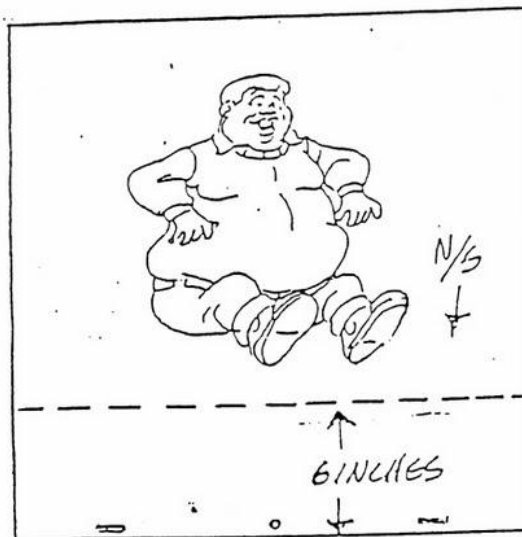
If you have a N/S move that requires more than 6 inches, the N/S pegs have to be reset midway thru the N/S move, (the Director will do that.)

NOTE: ONE CAMERA HAS THE CAPACITY TO MOVE N/S AND E/W FOR DIAGONAL MOVES. THIS MOVE IS A HARD JOB, SO SEND A SIX-PAC WITH A MECHANICAL MOVE LIKE THAT.

Another way of getting the same effect is by planning a 90° Vertical Tilt. 8 3/4 Field is the most you can call for, with a 90° Vertical.

EXAMPLE:

ANIMATION PLANNING IN LAYOUT (cont.)

ANGLE ON HE MAN, SHERA, SWIFT WIND

SHERA is standing beside her unicorn, her hand stroking it
HE MAN faces her, speaking to her.
HE MAN (con't)
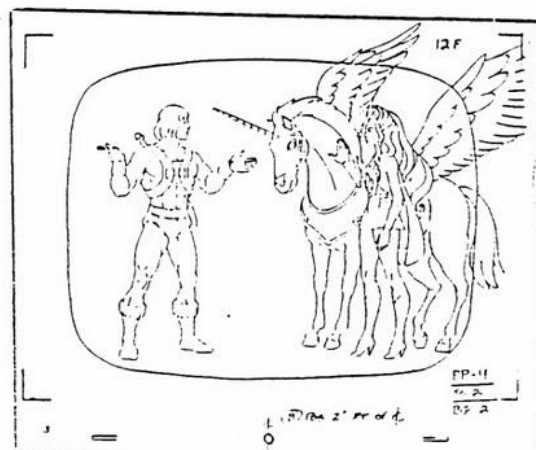You say you're my sister, but
I never had a sister.

(1) Check scene on storyboard for workability, hook-ups with previous scene and whether the characters work into poses to hook-up with the following scene. Don't feel locked into the storyboard.

(2) Changes made here are, body positions on Shera for two reasons;
1st. It gets away from the same basic 3/4 front view on both characters.
2nd. It turns her more toward HeMan and makes solid eye contact between them. It is easier and more natural. Shera's body was turned rather than HeMans because his gesture would not have read in profile and would have been awkward to draw. Also the sword shown at Shera's side is an error of storyboard, leave it out. The final change was to turn HeMans head to face Shera again for a solid eye contact as he speaks to her.
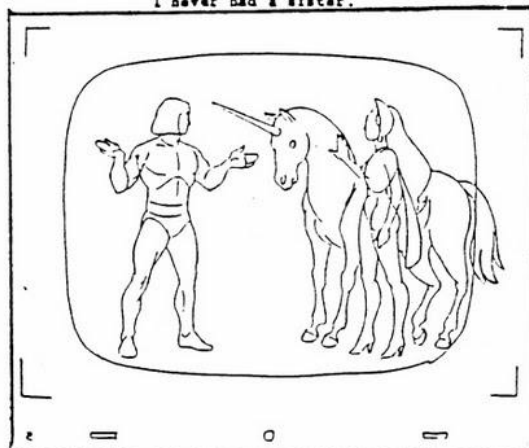
(3) After finishing the drawing, if you haven't done so, be sure to indicate the Field size & position and any camera moves. The best idea is to indicate these on your paper before you start to draw so you can avoid Bad Tangents and be sure to be the right size within the cut-off, etc. Also indicate pertinent information production numbers and scene numbers in the lower right hand corner of EVERY DRAWING in the scene folder.

INTERPRETATION OF SCENES

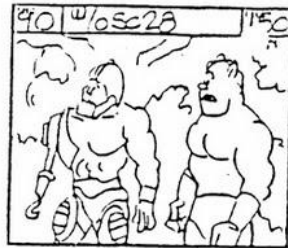## STORYBOARD'S INTERPRETATION OF SCENE

EXAMPLE:

INT MINE

PAN 10 ⁴FT BEFORE DIAL —

PAN ACROSS a rocky tunnel with villagers hard at work at one
end of it, digging with crude mining tools, to He Man
propped against a rock near the elderly Colin. The tunnel
has no support beams.

·EFX GLOW
ON LANTERN   HE MAN (VO)
IN FG -   How goes the digging, Colin?
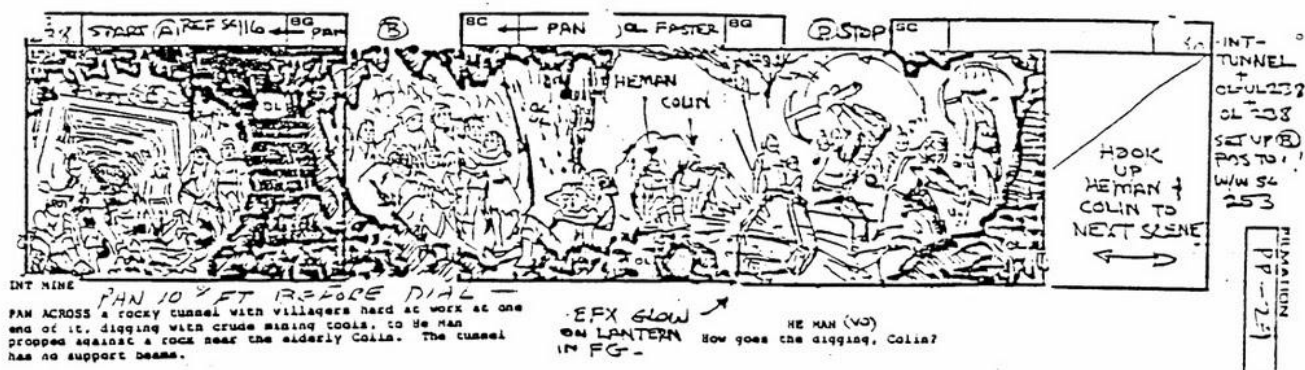
LAYOUT ARTISTS INTERPRETATION OF SCENE

EXAMPLE:

WHENEVER ANY EXTREME CHANGES ARE MADE IN STAGING AND IN POSES,
THE STORYBOARD DEPARTMENT MUST BE NOTIFIED OF THESE CHANGES.

THESE ARE EXAMPLES OF STORYBOARD AND LAYOUT INTERPRETATION.
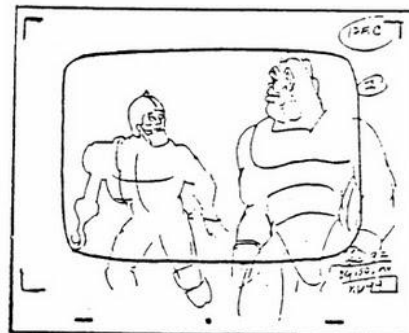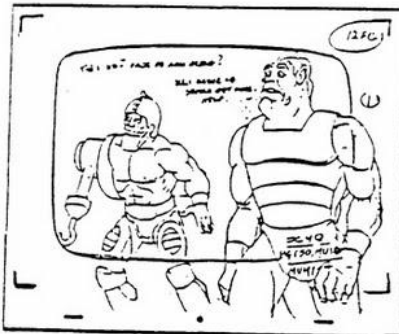
STORYBOARD INTERPRETATION

LAYOUT INTERPRETATION

STORYBOARD INTERPRETATION
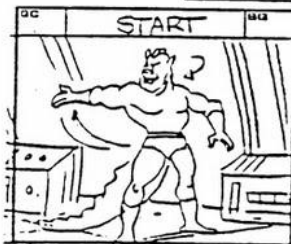
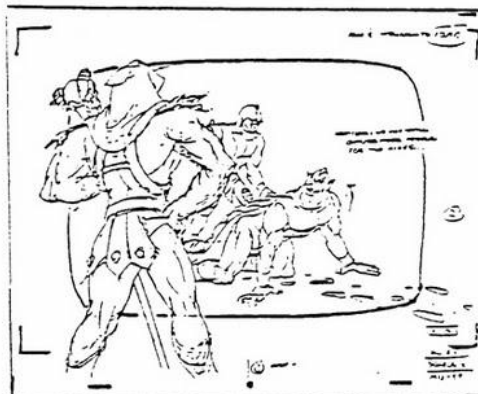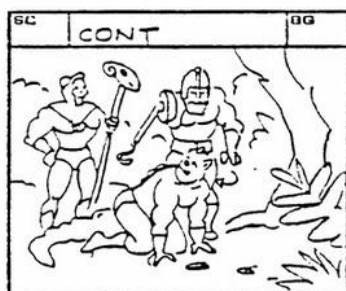

LAYOUT INTERPRETATION
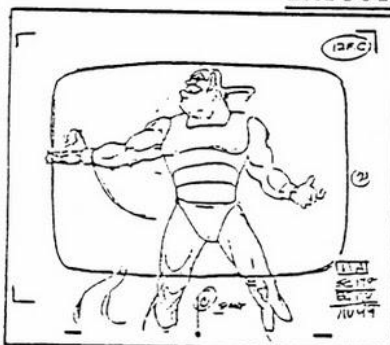
WHENEVER ANY EXTREME CHANGES ARE MADE IN STAGING AND IN POSES, THE STORYBOARD DEPARTMENT MUST BE NOTIFIED OF THESE CHANGES.
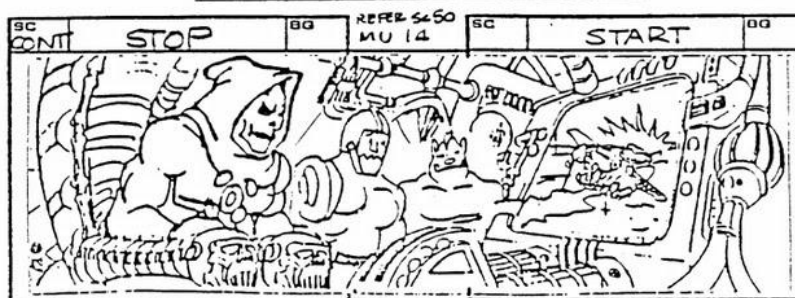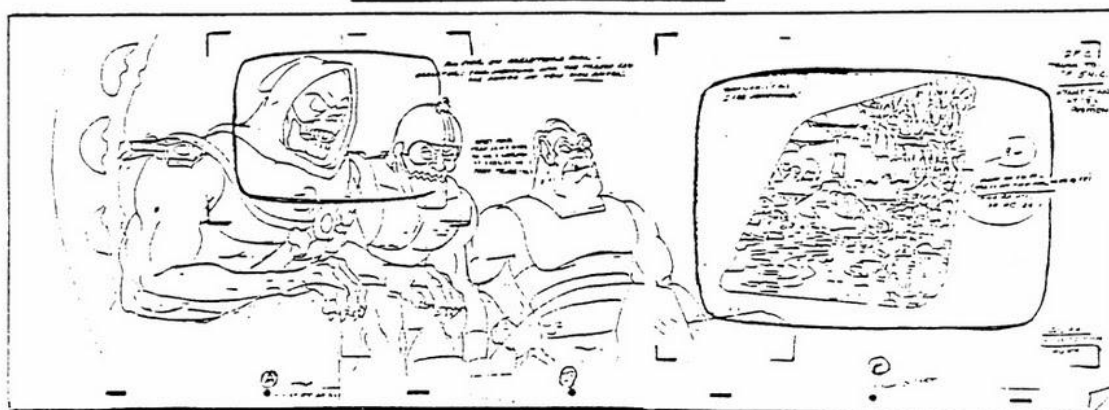
INTERPRETATION OF SCENES

STORYBOARD INTERPRETATION
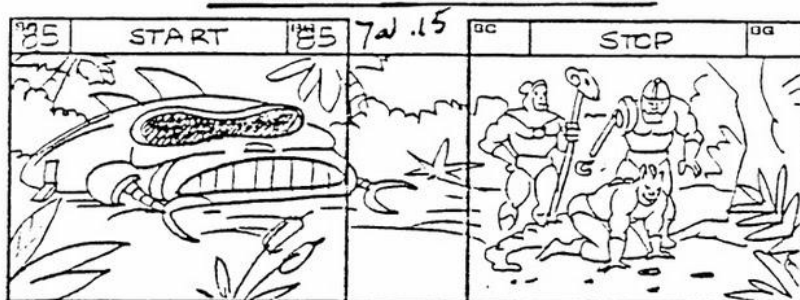
STORYBOARD INTERPRETATION & LAYOUT INTERPRETATION

STORYBOARD INTERPRETATION


LAYOUT INTERPRETATION

WHENEVER ANY EXTREME CHANGES ARE MADE IN STAGING AND IN POSES, THE STORYBOARD DEPARTMENT MUST BE NOTIFIED OF THESE CHANGES.

VERTICAL FIELD

   Vertical Field is when the camera is turned to 90°
tilt counter clockwise. The largest maximum field is 8 3/4
field.

1.   Remember that it's the camera that has changed position,
     not the Art.

2.   In order to visualize this, turn your Disc so the top
     pegs are on the right and the bottom pegs on the left.

EXAMPLE:

Animation   Background
Bottom pegs   top pegs
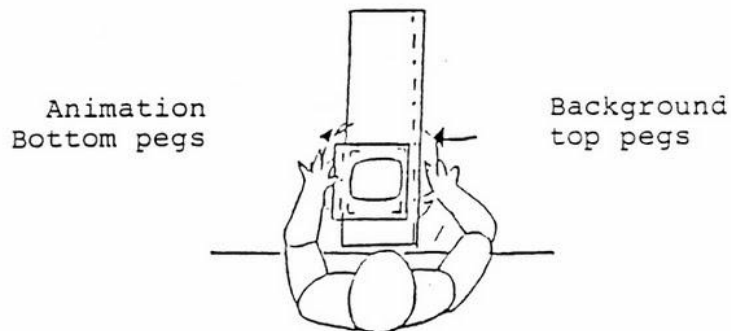
3.   When designing Vertical backgrounds, top is always up
     and bottom is always down.

EXAMPLE: (A)   (B)   (C)   (D)
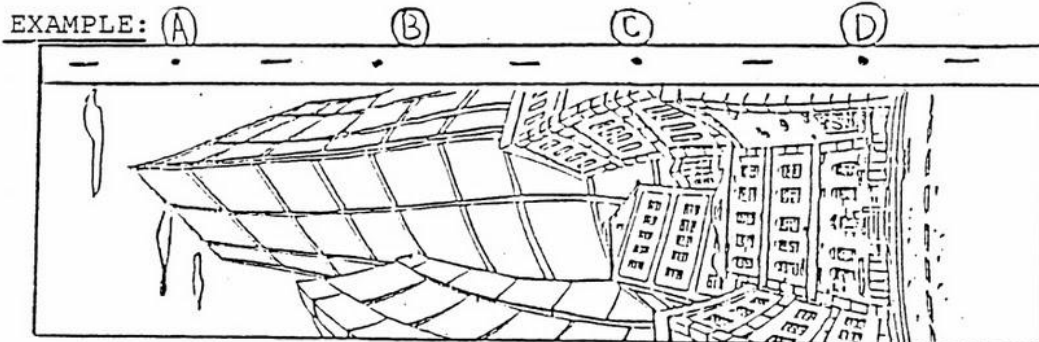

4.   Field written as:
     <u>8 3/4 FIELD 90 ° TILT COUNTER CLOCKWISE.</u>

5.   Remember to indicate starts and stops.

6.   Draw a character as large as possible if dialogue is
     called for.

THE ACADEMY 12-FIELD WITH TELEVISION CUT-OFF

    The Layout Artist works with the Academy Grid and the Television Cutoff.

    The Academy Grid will guide the Artist in planning the layouts when the action calls for a Cut or Truck-In. A Cut is when you " Cut-In ", from one scene to another and a " Truck-In " is when the camera moves into a closer shot. Such as a move from 12 field to a 7 field 2 north and 3 east.

EXAMPLE: YOU WILL MOVE YOUR TELEVISION CUTOFF EAST TO 3 EAST AND MOVE NORTH TO 2 NORTH.
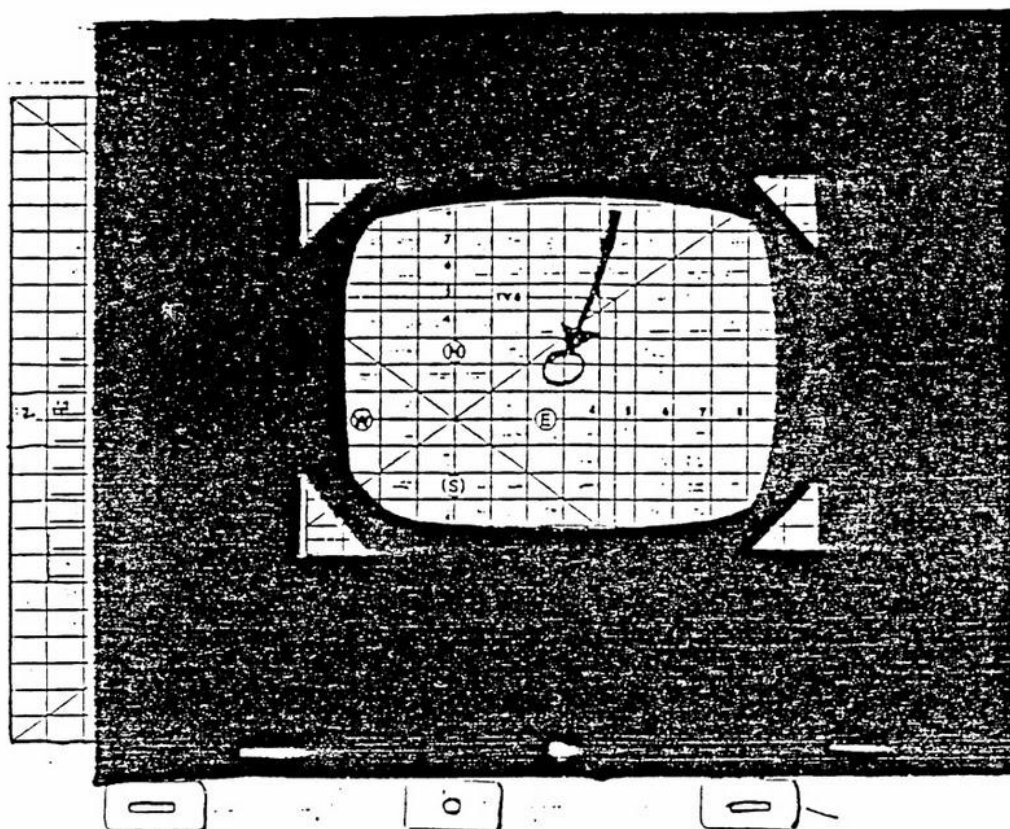
ACADEMY GRID cont.

    The Television cutoff is the picture you will see
on the screen. The Academy Grid is the area you will
have to work in. Never go beyond the 12 Field line with
your cutoff guide.

    On an Animation Camera, is a replica of the same
chart. By using a Pantograph attached to the camera and
also a Field Chart, the Cameraman is able to accurately
determine the position of the camera in relation to the
Art.

    More information will follow in Layout Planning.

TILT FIELD GUIDES

THESE ARE YOUR TILT FIELD GUIDES AT FILMATION

TILT FIELD CHART   A CHART THAT GRAPHICALLY SHOWS
                          THE MAXIMUM DEGREE OF CAMERA
                          TILT FOR EACH FIELD.

     Obliviously we can't tilt a 12 field when shooting a
12 Field piece of Art, but each of the smaller Fields has
a Maximum degree of Tilt that can be used. If this Maximum
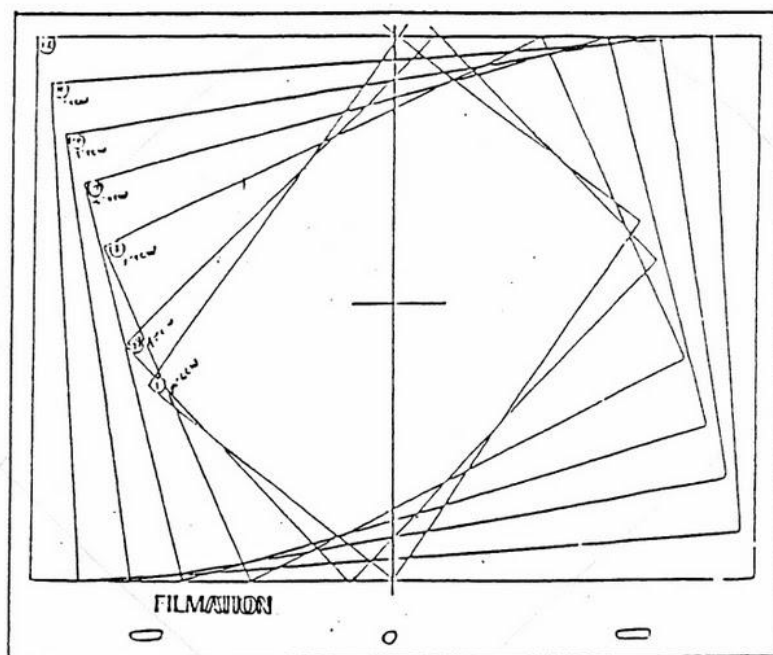is exceeded on a given Tilt, the Camera will photograph
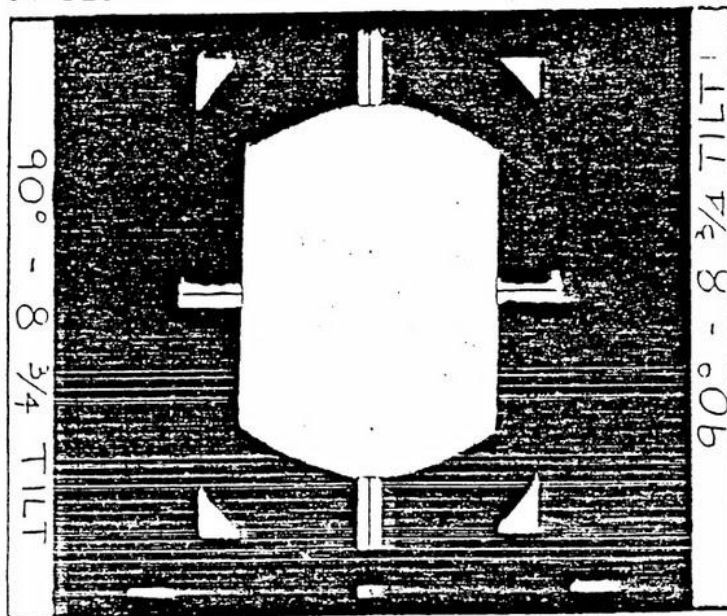part on the Camera Bed.

EXAMPLE:
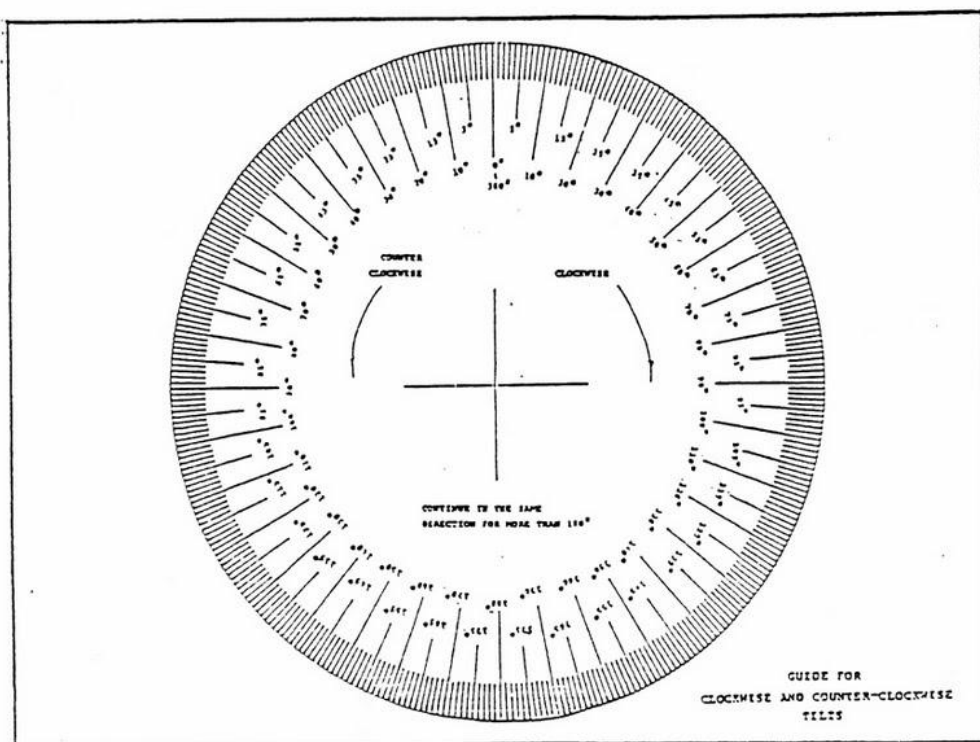
180° TILT GUIDE

TILT FIELDS (cont.)

CHARTS

EXAMPLE: COUNTER CLOCKWISE (CCW) TILT GUIDE SHOWING
THE MOST YOU CAN TILT WITH A GIVEN FIELD,
(FLOP, FOR A CLOCKWISE TILT.)

EXAMPLE: 90 DEGREE VERTICAL TILT (8 3/4 field)
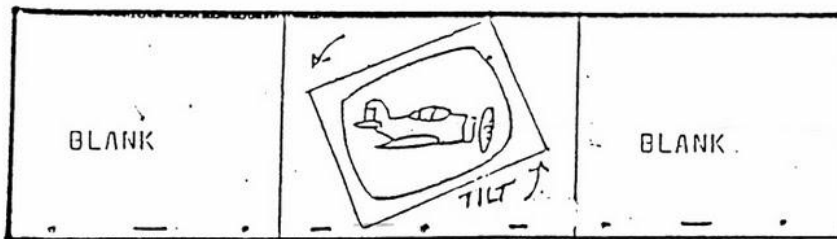
TILT FIELDS

DIAGONAL FIELD OR TILT FIELD

The camera is rotated to view the Art work at an angle. It can be rotated either clockwise or counter clockwise. Imagine the problem of having a man run down or up a hill, or an airplane diving or rising diagonally thru a scene. This can be accomplished easily by using a Tilt Field Chart and designing Art work that will accomodate this kind of action.

### LAYING OUT A TILT FIELD

1. Select a Maximum Tilt Field.
    EXAMPLE: 8 field 25 degree tilt counter clockwise. Draw it on a 3 field Pan Paper including cutoff.

2. Draw an airplane, using the center horizontal lane of the Field Chart as the Axis.

3. Turn your Disc that the TV Field is at a right angle to you.

    EXAMPLE:

4. The airplane was designed horizontally. The camera has been turned to make it appear to dive diagonally thru the scene.

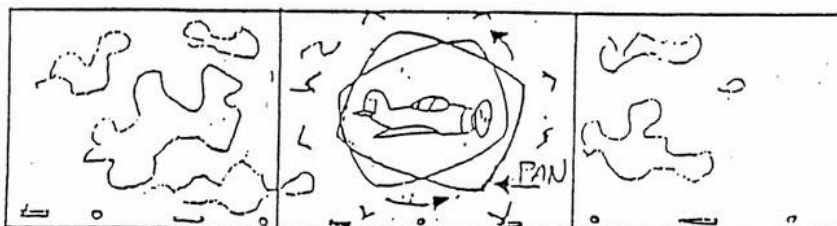5. Now design the sky background that will fit the tilted Axis of the Tilt Field .

    EXAMPLE: Clouds must have the same tilt.
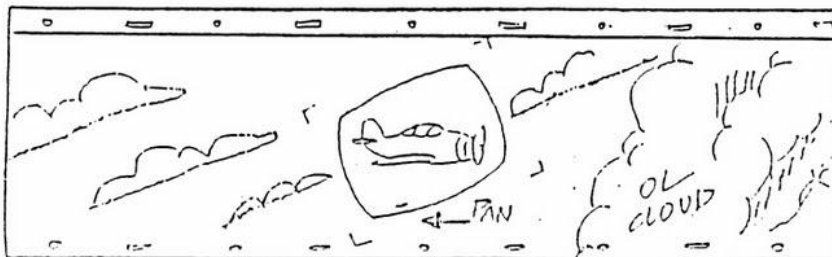
TILT FIELDS (cont.)

If you rotate your tilt field, you must use a non-directional sky pan.

EXAMPLE: If the airplane is in a climb, your tilt is clock-wise. For a dive you will rotate to a counter clock-wise tilt.


EXAMPLES OF A TILT FIELD WITH SLIDING CELS.

(A)   A car that must be made to look like it's going up or down an incline, but must pass behind something. The car follows a horizontal path, background graphics must tilt at the same angle as the tilt field.

EXAMPLE: Camera Tilted Clockwise.
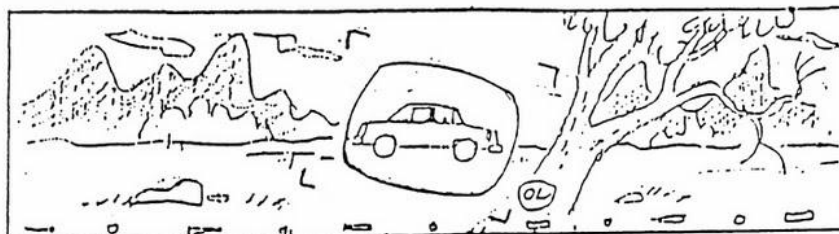
(B)   A car backing out of a van on a single field. Pull the car from behind the overlay using a 3 field cel.

EXAMPLE: Camera Tilted Counter Clockwise.
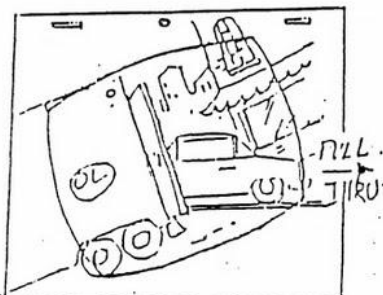
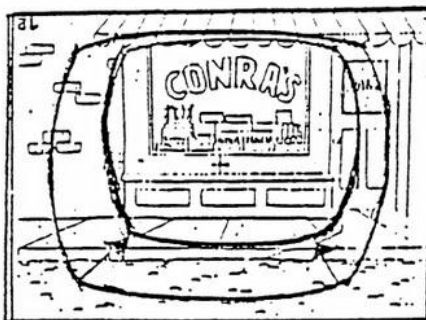Refer to notes on Layout ↴

LONG CEL

CAMERA TRUCKS

TRUCKS

Trucks are Camera moves that move in or out from the Background Elements, they show distance and screen direction. NEVER TRUCK LESS THAN THREE FIELD.
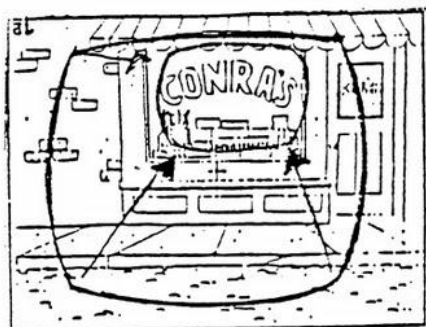
EXAMPLE: (A)

(A) WRONG: TRUCKING FROM 12 FIELD TO 10 FIELD WON'T GET THE FEELING OF DISTANCE OR SCREEN DIRECTION.

EXAMPLE: (B)

(B) VERY GOOD: TRUCKING INTO OR OUT FROM A 7 FIELD TO A 12 FIELD DRAWS YOUR ATTENTION TO A STORY POINT, OR SHOWS DISTANCE.

Never Truck into 6 field on Character Animation, it shows Bad Xerox lines. The closest is 7 field. You may Truck into 6 field with just the Background if it calls for a Cross-Dissolve (X Dissolve) or a Fade-out.

A FAST TRUCK IN OR OUT IS CALLED A ZOOM TRUCK.

CAMERA TRANSITIONS

TRANSITIONS

    Transitions are different ways to change the pace of the picture.

1. FADE IN: A lightening effect. This is how a picture begins.

2. CUT :   An instantanous transfer from one scene to the next.

3. DISSOLVE: (Lap Dissolve) The gradual merging of the end of one scene into the beginning of the next.

4. WIPE: The line appears to pass across the screen pushing off the first shot and revealing the next.

5. SPIN: This is when a Graphic image is rotated at a fast rate

6. IRIS: Moves in or out of a picture. The picture has a full exposure, but a series of masks with a hole (opening) gradually closes in or opens out, whichever the picture calls for, until the picture is completely covered or uncovered. Most of the time this is used at THE END. `

7. FADE-OUT: A darkening effect of the scene until it turns completely black. This is used at the pictures end.
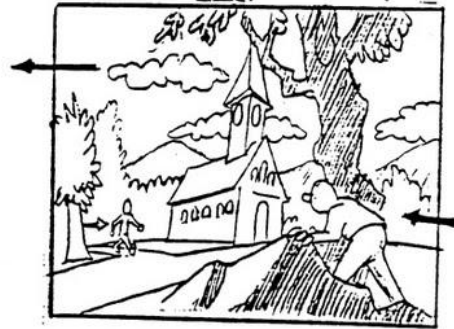
BACKGROUND DESIGN INFORMATION
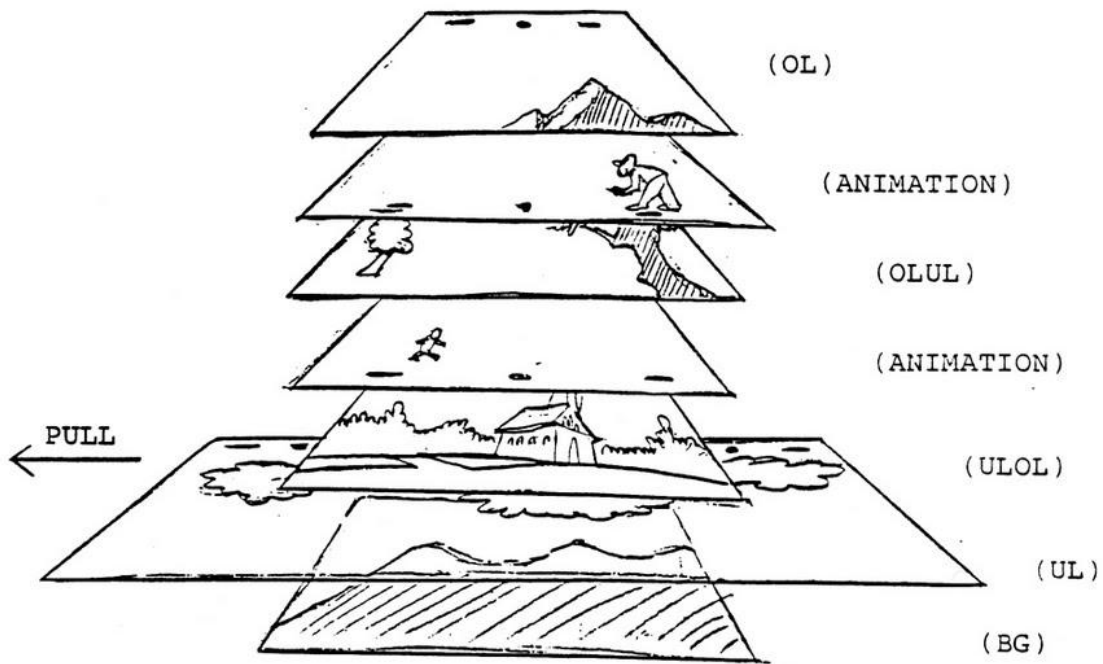
BREAKDOWN OF SCENE INTO SEPARATE BG ELEMENTS

A character walks out from behind some distant trees,
while another sneaks inbetween a rock and a foreground
tree. Clouds Pan through the sky slowly in the far distance
to add more movement.
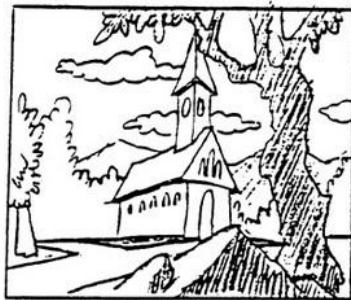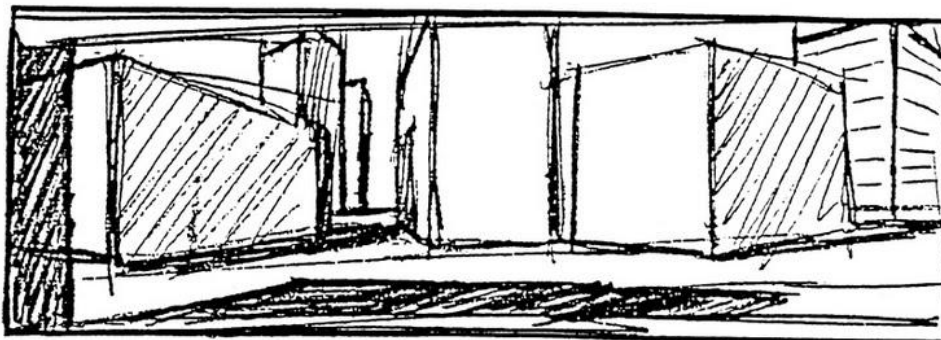

CAMERA

A typical setting

(OL)

(ANIMATION)

(OLUL)

(ANIMATION)

PULL

(ULOL)

(UL)

(BG)

THIS IS HOW A SCENE IS BROKEN DOWN INTO SEPARATE BG ELEMENTS

UNDER AN ANIMATION CAMERA
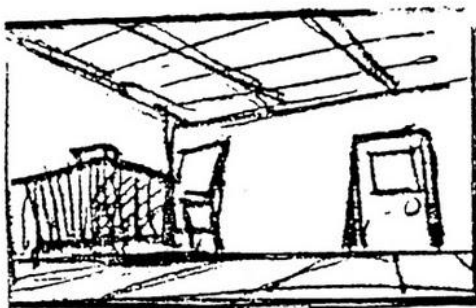
BACKGROUND LAYOUT (cont.)

PERSPECTIVE IN PANS

These buildings all follow pretty much the same horizon
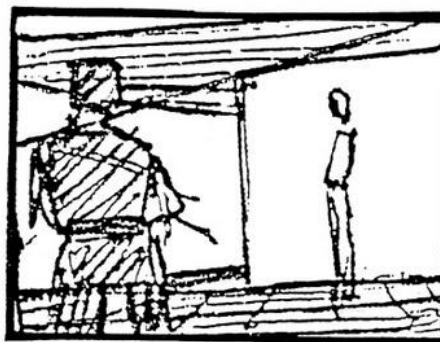line, yet each has its own vanishing point.

LOW HORIZONS:

Setting the angle of the background low, creates a feeling
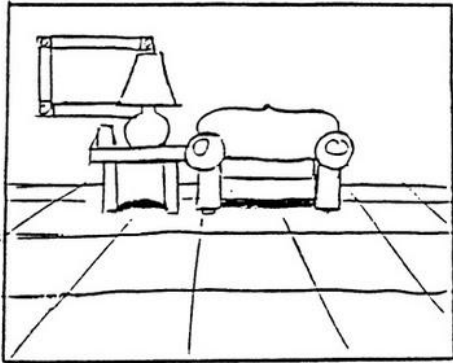of drama.

This could be a distorted
upshot.

When action is kept low,
it makes for low horizons.
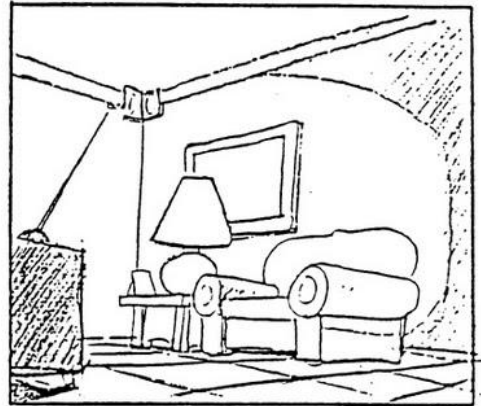
BACKGROUND LAYOUT (cont.)

BETTER COMPOSITION

EXAMPLE (A)   EXAMPLE (B)

THIS IS DULL.

   GOOD

Example (A) is dull, flat, without perspective and shadows.
It is cut into even halves.
Example (B) is much better and now tne floor is 2/3 or more
down from the top of the picture.

IMPORTANT THINGS TO REMEMBER

(1) Take an overall look regarding the regular cast of Charact-
ers and the new Characters, Good guys and Bad guys and contrast
them according to environment.
(2) Many new areas may be introduced in the script. Work out an
interesting variety of new areas, think Cinema!!!
(3) Review the sequence when establishing an area, keep the
continuity in mind for later scenes. Keep the flow of Direction
moving.
(4) When working with Stk. Characters Keep a clear path of
action.
(5) Do Thumbnail sketches.
(6)Spotlight areas, don't clutter close-up shots. Sometimes
color or texture cards are fine. Avoid straight on or a flat
wall look, put an edge on it.

WALL CARDS
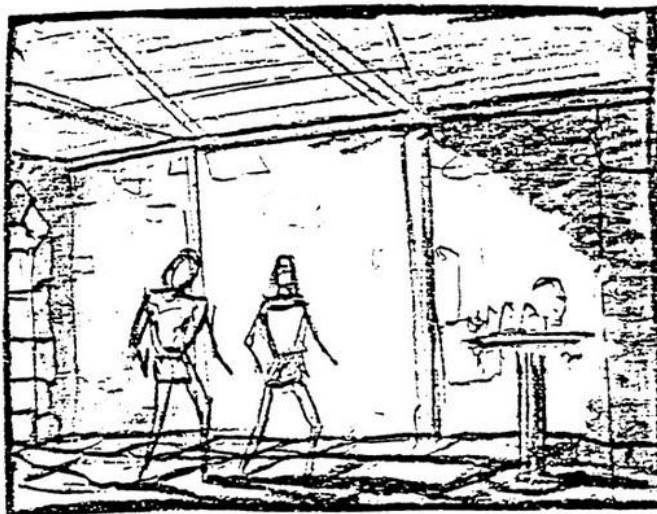
INT. ESTABLISHING SHOT OF ROOM

Possibilities of Re-use of Wall Cards.

	(A)	(B)

EXAMPLE:

Upper
Corner
of wall &
ceiling
close-up

(A-B) Pan

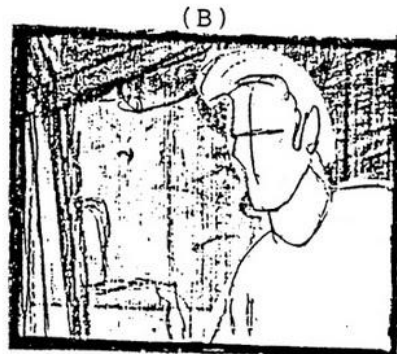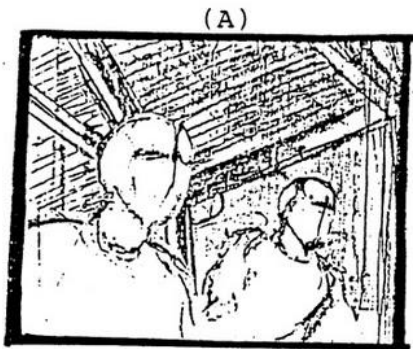|	(A)	(B)

Characters,
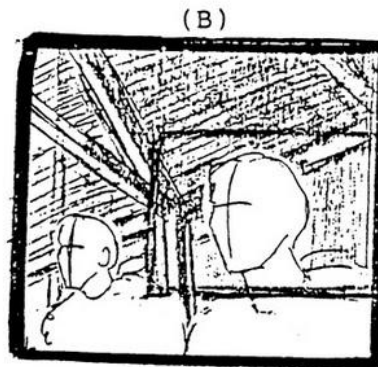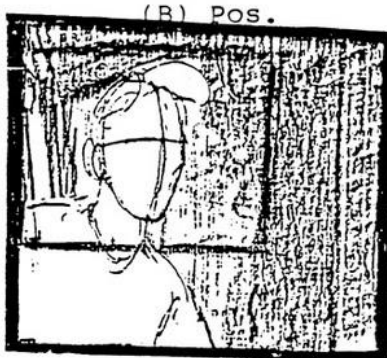Scorpion
added to
Layout.

Pan (A) pos.
to (B) pos.

Re-use will save on production cost.

WALL CARD (cont.)
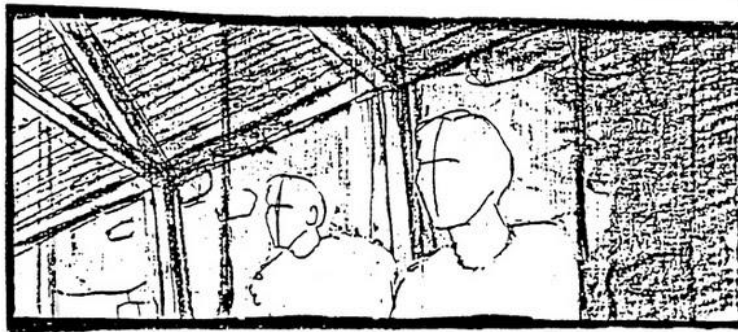
(A)　　　　　　　　　　　　　(B)

Cutting from one Field to another will really save
on costs, especially in dialogue sequences.

(B) Pos.　　　　　　　　　　　(B)

Use field cuts
for Close-ups
& more variety.

BG.'s can be re-used in
later sc.'s with differ-
ent characters as long
as the location remains
the same.

Flop Animation in later-
Sc's where Characters have
moved. You can use a Field
cut to isolate either Char-
acter in a close-up.

(A)　　　　　　　　　　　　　(B)

Any position on any BG. can be utilized, like these
Characters have been placed at 4" left of (A) pos.
center. For more information see pgs. 24 & 25.
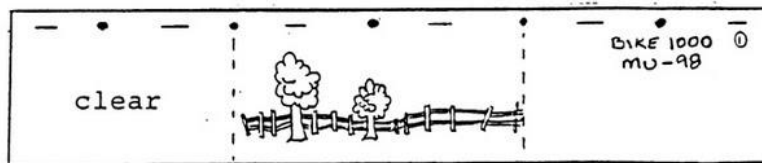
BIKE PANS

Bike Pans are always on an A-E length

Each Bike should have clear Fields on the ends. The BG.
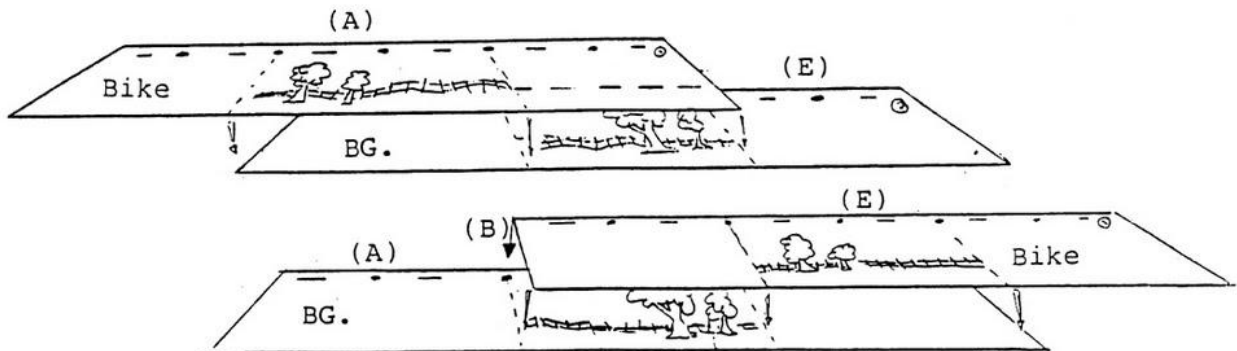is painted on an (A)-(E) length card.

Label as follows:

BIKE (1)

(A) and (E)

B.G (2)
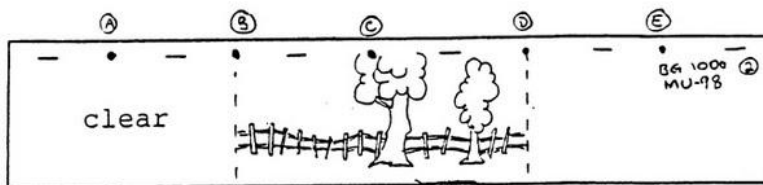
THE BIKE CYCLES UNDER THE ANIMATION CAMERA

Bike OL's, UL's & OLUL's should be designed the same way.

38

BIKE PANS (cont.)

There are certain problems one must avoid when designing a Bike Pan. Designing a Pan with only one or two recognizable subjects is no good as you would spot the same house or tree pan by every second or so.
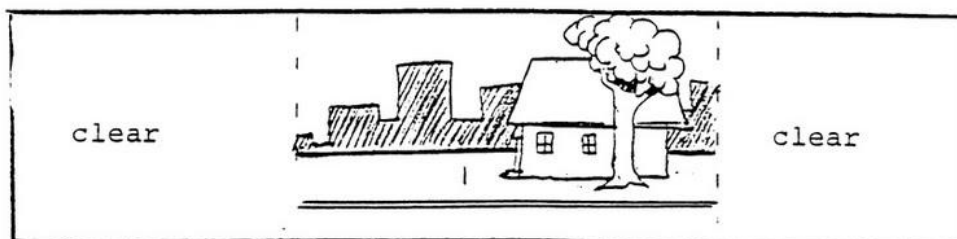
(NO GOOD)

If the subjects are spaced to evenly on the Pan they will strobe. One subject quickly assumes the space of the other.
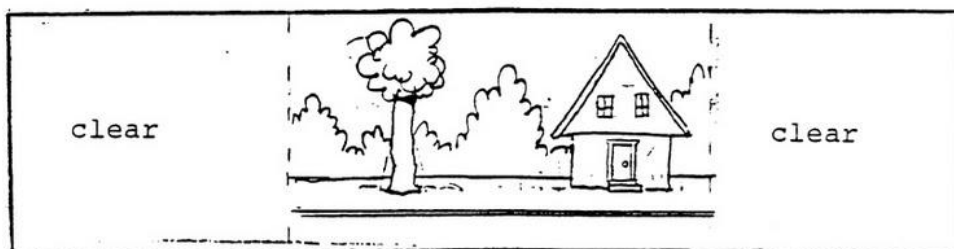
(NO GOOD)

Bike BG's should be designed with diverse shapes and perspective. The addition of a Bike overlay element also helps eliminate the monotony of the cycling Bike BG.
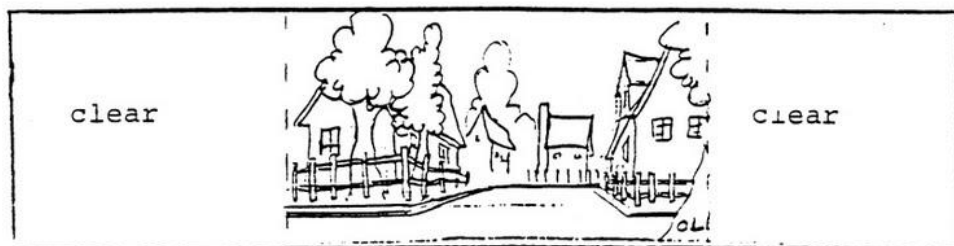
(GOOD)

BIKE PANS

STROBING EFFECT

Be careful about rows of trees or picket fences. Regular patterns strobe or appear to move backwards, it also makes a scene appear to be very flat.
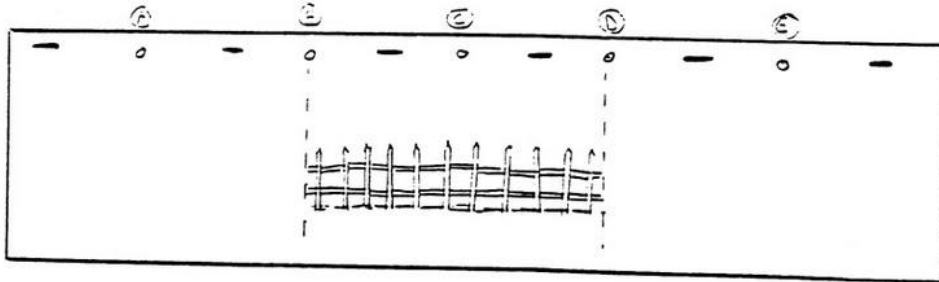
Pickets on a fence are more interesting when irregular and drawn in perspective, the same applies for trees.
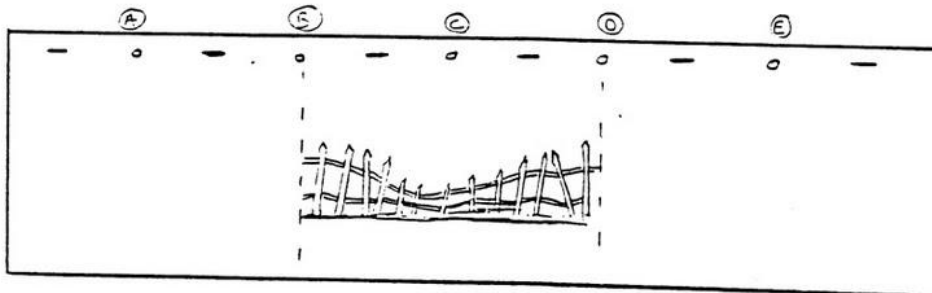
Change in the height of a fence or trees is also more visually interesting.
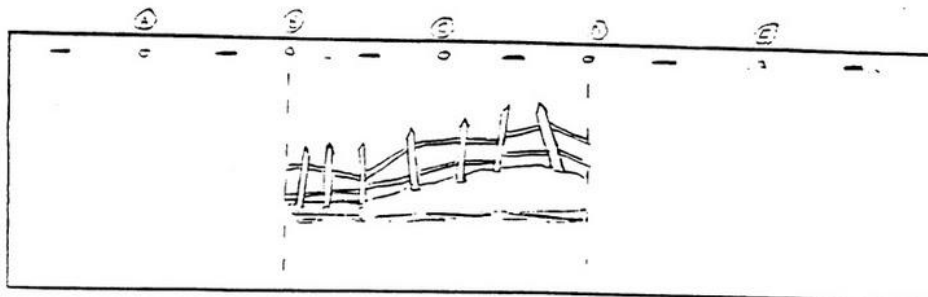
VERTICAL BALLOON PAN

FISH-EYE TRAVELING CAMERA

UPSHOT

START
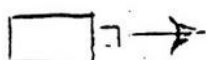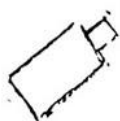
SLOW PAN

3 FIELDS

BALLON
STRAIGHT ON

DOWNSHOT
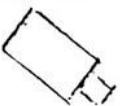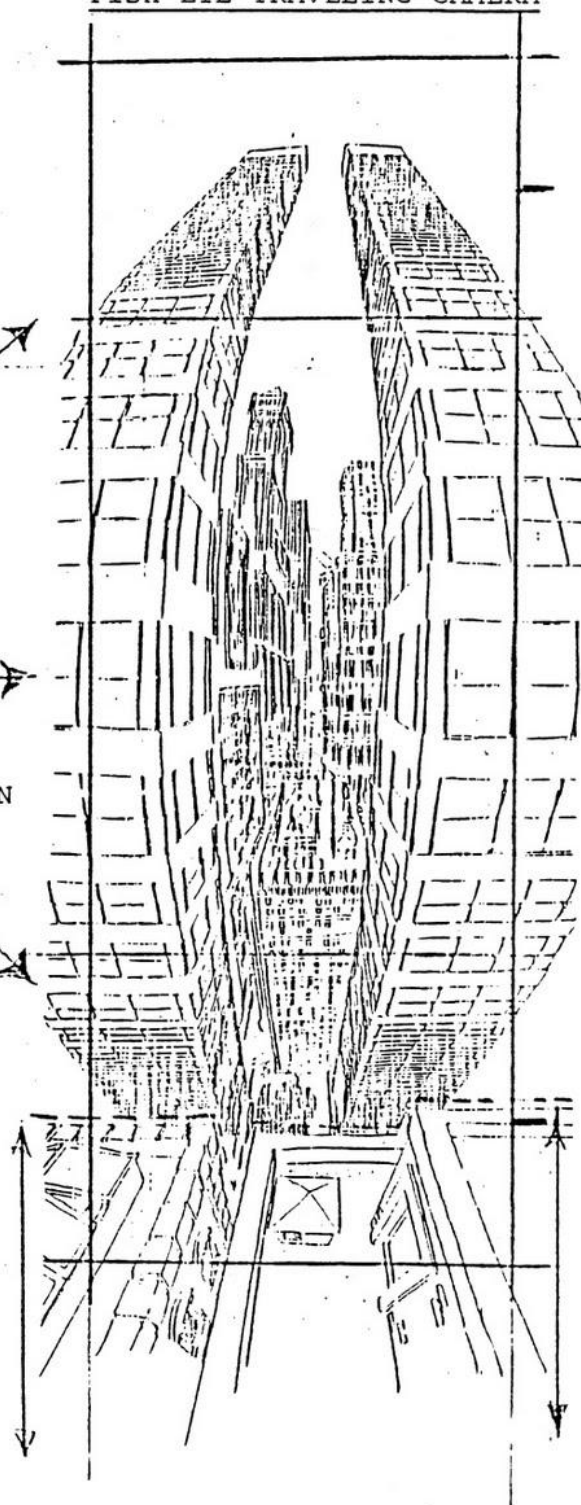
Remember, the
viewer only sees
one field at a
time on TV.

STOP

OL

OL When Camera
enters stop
position.

VERTICAL PANS

CAMERA TURNS 90° COUNTER CLOCKWISE
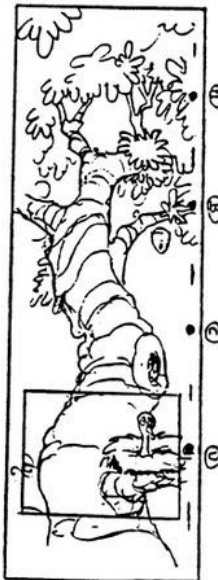
VERT. PAN
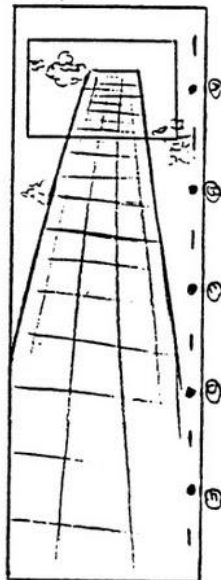
VERT.PAN AS
UPSHOT/DOWN
SHOT.
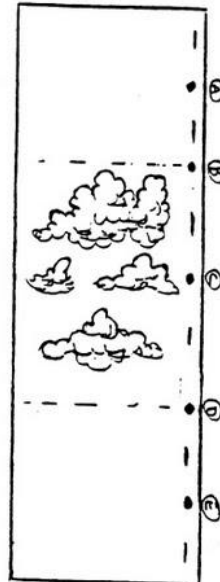
VERT. BIKE PANS
8 3/4 FIELD TV CUT OFF
MAXIMUM FOR VERT. PANS.
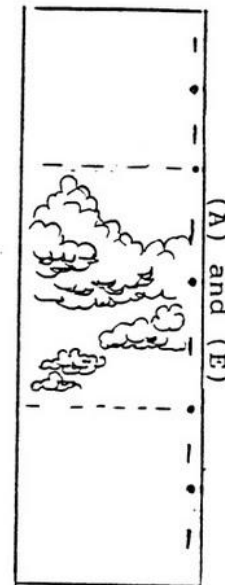
TILT PAN
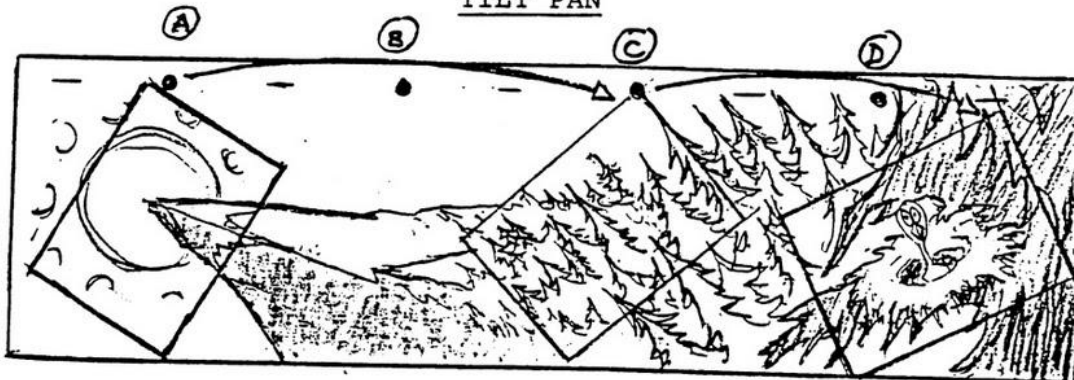
Tilt Field Pans, like Vertical Pans are useful when it's
important to see the entire length of a large or tall object.
They add movement and visual impact to otherwise boring scenes.

BACKGROUND PANNING AT SEPARATE SPEEDS
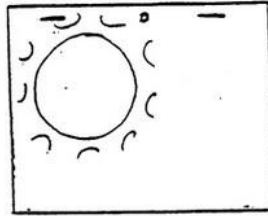
In a panaramic scene, dis-
tant objects appear to move
very little in relation to
the observer, therefore very
little or no pan is needed
on the Background.
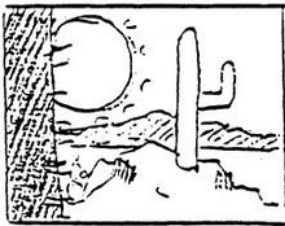
Sun & Sky
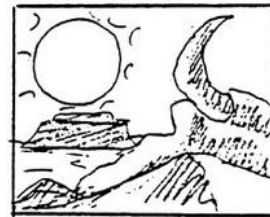
The Pan starts like this...

...and ends like this.

The middleground area in this case pans at a slow speed
and should be a longer drawing than the BG.
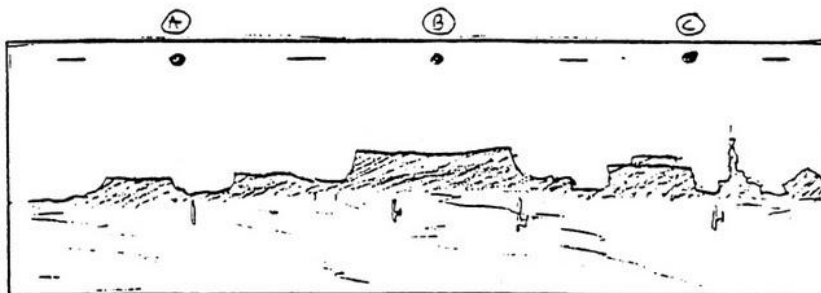
The OL in this example is the longest element because
the objects are closer to the viewer and they pan by much
faster.
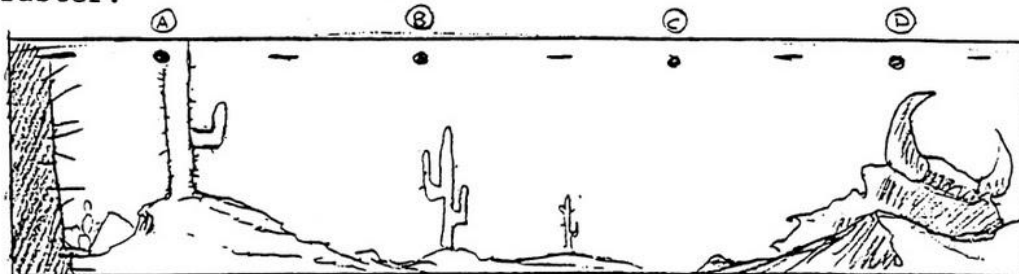
EXAMPLES OF PANS AT SEPARATE SPEEDS

Hold BG at (A) pos. Pan starts on moonlit sky.

EXAMPLE:
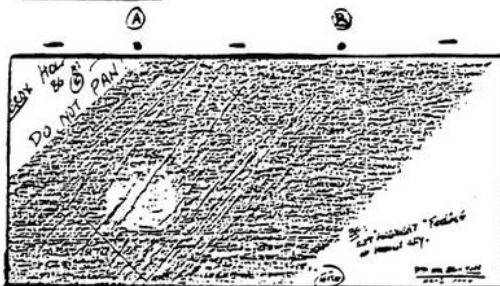
TILT FIELD

UL Pans past BG., stop at (C) pos.

EXAMPLE:
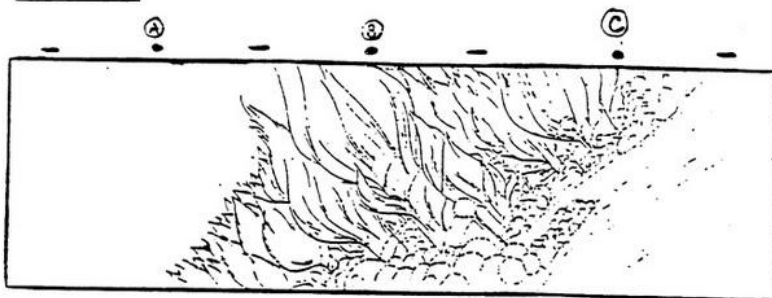
OLUL Pans faster than UL, stop at (D) pos.

EXAMPLE:
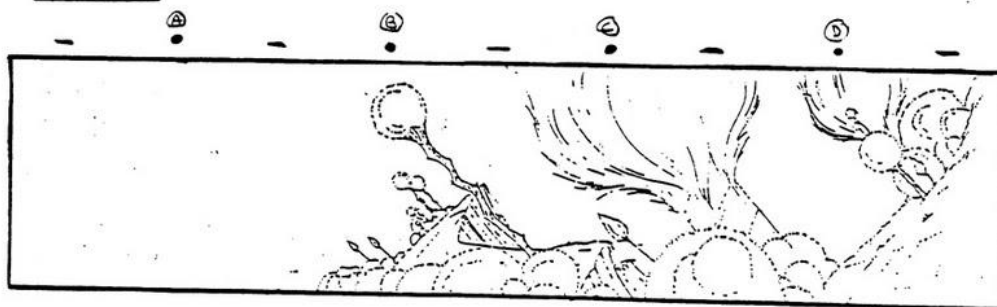
BACKGROUND LAYOUT (cont.)

TRACKING SHOT

EXAMPLE:
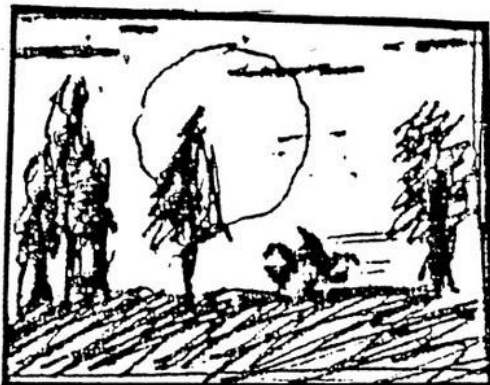
For the length of the scene, the BG. is held. Clouds pan 8" (A-B): the OL pans 32" (A-D) or infinitely. (Bike Pan)

In the example above, the script or storyboard calls for a Bike Pan, or Pan of a Character on horseback riding across a hilltop. Lets plan for three elements.

(1) BG. Night sky with moon and stars. (single Field)
(2) Distant Clouds Airbrushed (A-B Pan)
(3) OL Foreground, hilltop (A-D Pan) or if a Bike Pan, 2 elements.
    (Animation works under ol. just touching ground beneath the edge of the panning element.)

Once the scene is in motion we will be amazed at the Dramatic feeling of it. The Background sky and moon remain at center(tape to top bar). The clouds move slowly across the sky because they are far away. The foreground however, should move by rather quickly as it is close to the Camera. The rider on horseback is held at center or slowly panning in from right to left(bottom pegs) This creates the feeling that the Camera is racing alongside the rider, it is very effective.

BACKGOUND LAYOUT (cont.)

ANIMATED BACKGROUNDS

There are times when, in order to get a feeling that a background is moving in perspective, we are called upon to design animating backgrounds.

Usually all of the land elements such as a road, fence, trees etc. are animation elements and the background is a card or a background with only two tones, a sky and road.

Many times it's the kind of shot seen in live action, where a car is following and being photographed by a Camera truck.

EXAMPLE:
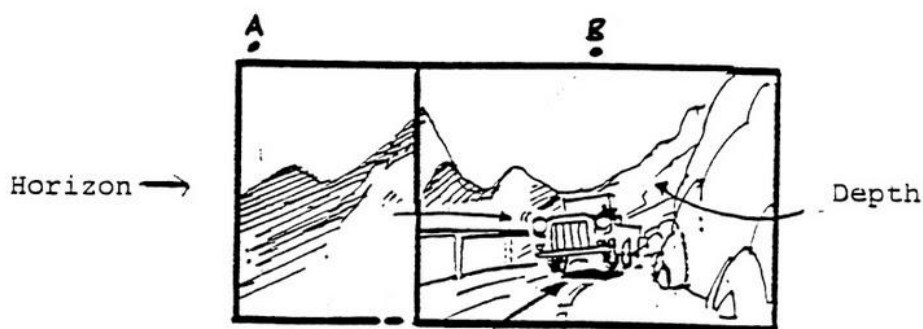
The important thing to understand is that the shapes that animate must be very simply designed. The mountainside and rock shapes animate back in perspective. The scene must be kept short and can also be flopped.

BACKGROUND LAYOUT (cont.)

ANIMATING BG'S
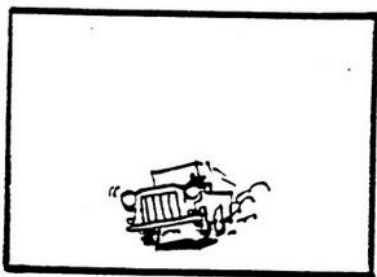
Held Cel car.

Slight quiver of car indicates speed, also smoke efx.
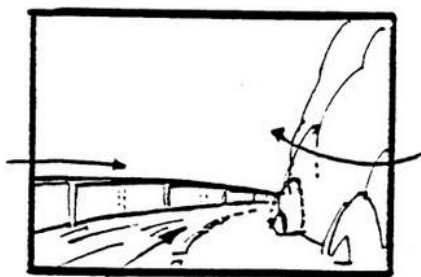
Minimum cycle animating into itself fast.
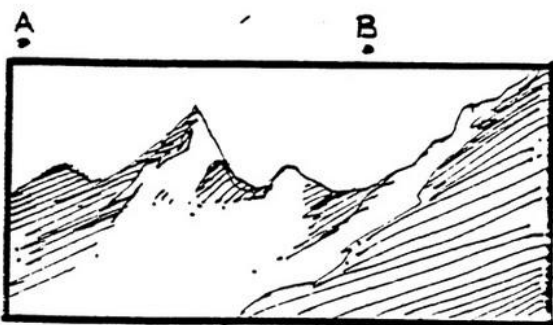
Short BG Pan
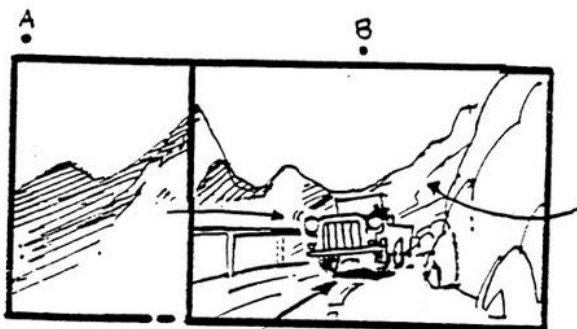
Composite of scene.

BACKGROUND LAYOUT (cont.)

ANIMATING BACKGROUNDS (cont.)

HOW TO LAYOUT AN ANIMATING BACKGROUND

(1) Decide on the perspective points of the background and the
    Camera angle of the scene.

(2) Rough in the car that is to remain constant in the scene.

(3) Draw in the mountainside keeping in mind that the rock
shapes deminish in size as they go around the curve.

(4) Separate your elements:
    A. The Car (HC)

    B. The linear animation on the wheels.

    C. The ground, mountainside and rock shapes.

    D. The linear lines on the road(which might be combined
       with the wheel animation.)

    E. The background hills, the flat colors painted in for
       sky and the sides of the road.

    It is possible to create a much more involved animating
background, but the same principles should be followed.

BACKGROUND DESIGN IN LAYOUT

One Artists Interpretation

The Layout Artist is constantly besieged by castles, mansions, forests and cities, etc.
Problem: To design a setting that is different, exciting, and believable. Suppose a script says this:

EXT. NIGHT   Establish castle on hilltop with a pan. Our Heroes stand on the otherside of a deep Chasm, looking at the hugh castle on the other side.

Now, if this were the Villians domain and let's say the story has built up to this point where we've heard how evil this guy is, and how we're going to see his place for the first time, we must consider a few things.

(1)ATMOSPHERE: Evil places are best seen at night or if the script is calling for a day shot, we should find some way of shrouding the castle in a dark gloomy sky, mist, fog, etc. These all add to the Atmosphere of the setting. Ideas that have been established in past animation Classic's are ageless.

(2) SETTING: Evil, mean, bad guys and gals never build dark ugly castles on green grassed hilltops with pretty flowers and cypress trees. They pick out of the way places, foreboding and hard to get to, etc. Since we are dealing with strict visuals here, we need to sell the idea. First we must make a thumbnail sketch, then we can start to visualize.

(3) DESIGN: Ideas come as we sketch. We think, yeah, maybe it's a tall spiral of rock and the castle is the utmost peak of the rock, carved and weathered. We consider the time period and place. Are we on earth or Mars? or maybe in some mythological land, neither here nor there. Is it the present, he past or the future? We wouldn't want to put a Norman castle(there are exceptions) on the planet "X" in the year 3020, nor would we want to put a palm tree in a Fairytale setting. Maybe the castle isn't even a building, maybe it's an ancient shrine to some being. It may appear as a lone figure, battle ax in hand standing watch and carved in stone. Yet as we draw close to the statue, we see

BACKGROUND DESIGN IN LAYOUT (cont.)

that its just that, a huge 1,500 ft. statue carved in granite, the hollowed out home of the Villian. This is how to approach the problem. Use logic. Does this bad guy have big spaceships?, maybe his castle is the hull of a huge crashed ship from milleniums ago, maybe its eyes are so big and they are really hangars for the ships. When the statue appears to open its eyes, it's really opening up the hangar doors. This brings us to scale.

(4) SCALE: No area has been more neglected than setting up scale. When an object is further away it will be smaller. When an object is closer to us it will be larger. This is the Natural Law.

(1) In the Foreground there should be alot of detail on the ground. A human stands there, small in the field.
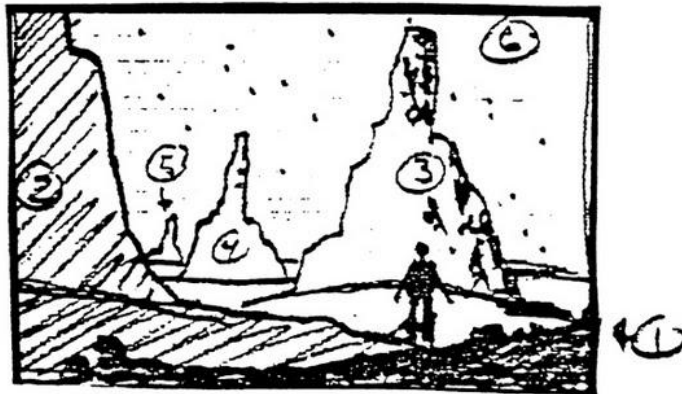
(2) 2nd level. On the same type of rise we see the base of a giant rock, about a quarter of a mile away. Now there is not so much detail, but still enough to be recognizable as a big rock.

(3) 3rd level. We see the full rock shape about one mile away, not detailed, but the shadowed areas create texture. It is the same rock as in level 2.

(4) 4th level. Now two and a half miles away the same shape of rock with some shadow, more a sillhouette than anything else.

SCALE (cont.)

(5) 5th level. Horizon. the furthest level on the ground is only a sillhouette against the sky.

(6) SKY. No detail. Call for a soft focus treatment.
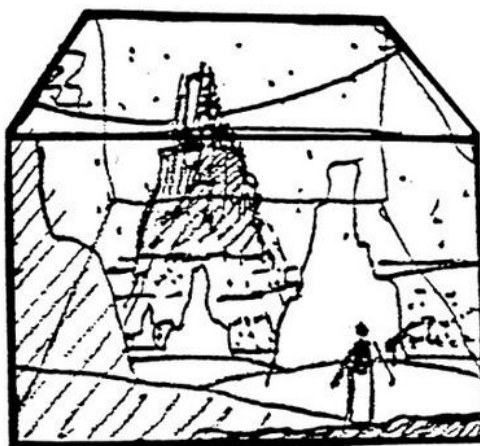
Now suppose you put a huge structure, monument or building past the 5th level , before, the 6th level. Now we're talking HUGE! I mean the thing is five miles high and two miles across. It should fade out at the bottom, like mist or atmosphere, obscured at the base because it is so far away it,just can't be seen. Detail should be light. Maybe you could add the rim of a planet passing by the structure's top.

This is just a sample of the many exciting possibilities of scale.

BACKGROUND DESIGN IN LAYOUT

short BG

Distant Castle

ol-ul
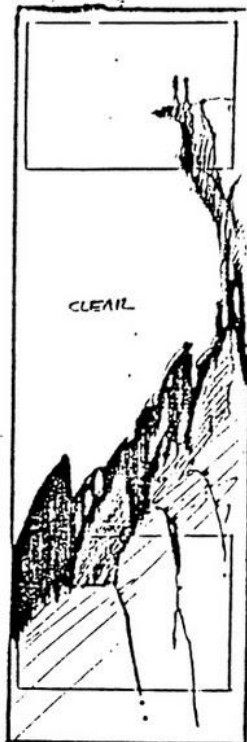
Our Heroes atop
hill by chasm

ol

ESTABLISHING SHOT OF CASTLE

If you are working from a storyboard, refer to the
board sketch. length of pan. There is nothing more exciting
on an establishing shot than a good slow deliberate pan
move. It creates excitement and suspense. Like Truck-ins,
some think that trucking in on a scene means to go from
a 12 fld. to a 6 fld., nonsense, nothing is more interest-
ing than a slow drift in as if you're being pushed in a
slow creaky wagon towards the image on screen. We're talk-
ing about creating a mood.

BACKGROUND DESIGN IN LAYOUT

SICILT L=

A THUMBNAIL SKETCH

No words are needed to tell us that this
is an evil castle. Your Thumbnail sketch
may look something like this one below.

COMBINED
BG →
END POINT

STOP
• A STO

• B

• C STAY

• D

• E.

START

BG. castle, sky, chasm.

our Heroes

OL-HL- END of- BRIDGE
characters work
under it.

combined OL. A
peak-A-Boo' Arched
stone Bridge

NOTE! refer to paintifis,
pans as opposto to
tracking pans.

90° CCW
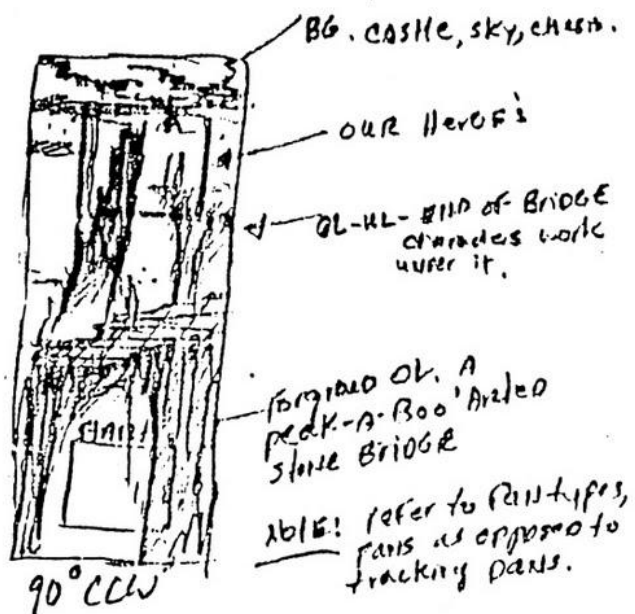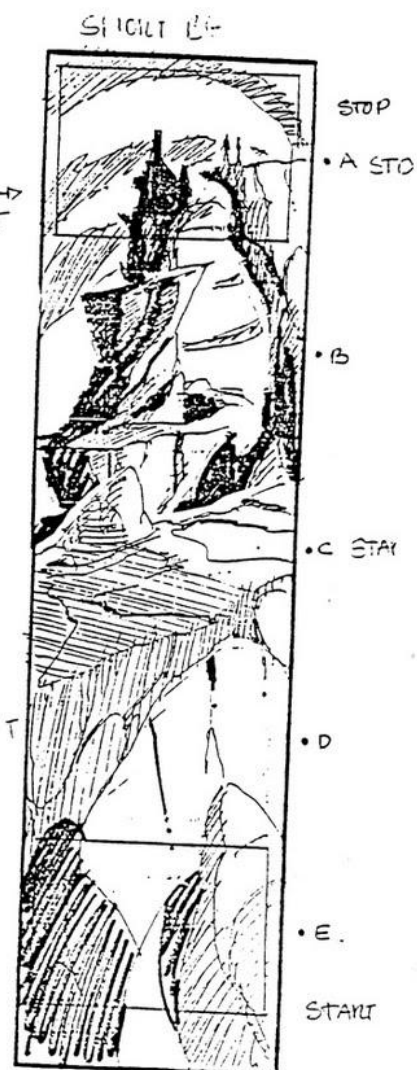
FINISHED LAYOUT BG.

BACKGROUND LAYOUT

LAYING OUT A SCENE

Single out your characters
by putting them in a good
spot to read them. Notice
how they read against the
light tree trunk in the BG.
This quick thumbnail sketch
is the first step in laying
out a scene.

A Background Artist should alway include Character posi-
tion and BG. together, even though they are only really con-
cerned with the BG.

Once the composition is set, the work is half done and
the most important part, the staging, is accomplished. If you
are working with Stk or S/A material, you'll need to pull them
and work around them, also you should check the Storyboard for
any preceeding or following scenes that involve your scene and
accomodate room for the new action, if any.

SHADOWS
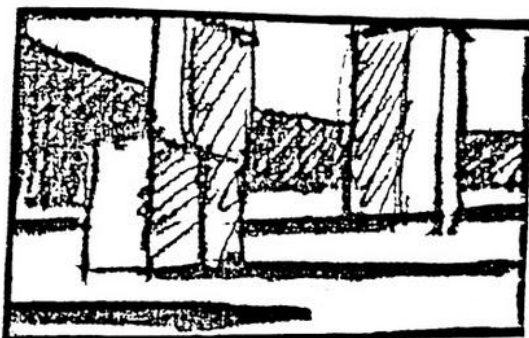
Shadows are a good way to
create Depth and Dramatics.
Casting long shadows can
make a flat sc. seem 3- de-
mentional. Remember, the
shaded side of a building
is lighter than the shadow
cast by the building be-
cause of reflected light
from other surfaces, ie:
grounds, buildings, etc.,
are illuminating even the
shadow side of the build-
ing.

<u>BACKGROUND DESIGN IN LAYOUT</u> (cont.)

To often when the script calls for a character to peek
from behind a tree or bushes, and they're on planet "X" in
the year 3020, we <u>don't</u> want to see Earth trees or bushes.
<u>Learn to create</u>. Create a new species of trees or bushes, un-
<u>like</u> those of this Earth.

<u>This is more like normal Earth trees.</u>

<u>For Planet "X" we want to create something more
like this</u>.

BACKGROUND LAYOUT (cont.)
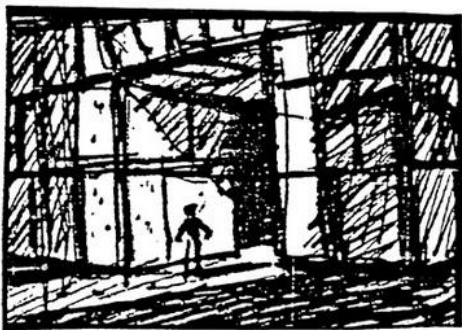
Heavy structures such as stone
and concrete are more believe-
able with thick massive walls.
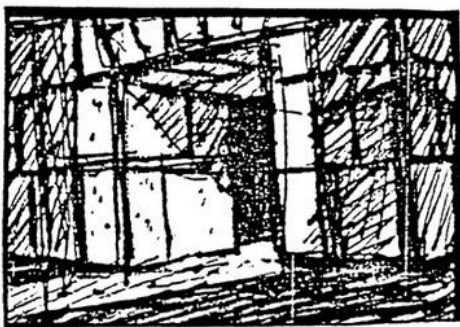
STRONG WALL
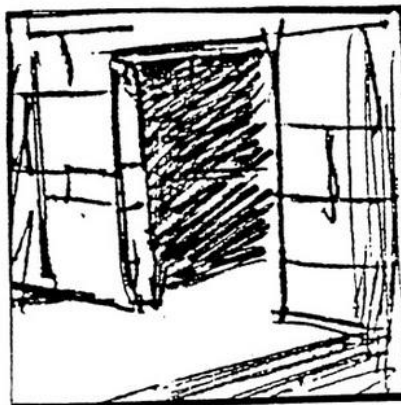
WEAK WALL

PERSPECTIVE IN PANS

Let buildings go off to different vanishing points. Put
in some horizon lines, it will keep the BG from becoming to
mechanical and dull.

BACKGROUND GRAPHIC DEPARTMENT

This BG. Dept. has many functions which are listed below:

1. All backgrounds drawn by the Layout Dept. are reduced to a linear style so that they can be Xeroxed on Cels so that the Painters can understand the mood and feeling that the Layout Artist wishes to Impact.

2. All cleaned up BG.'s are Xeroxed and sent to Storyboard for reference in future shows. They are also used by Animation checking for registry lines and are small sketched for the stock books.

3. All rough BG.'s are Xeroxed and kept in files for use by Layout Artist's. They are used for reference for style, location, S/A, etc.

4. All Graphics are checked by this Dept. to see that certain elements (i.e., Exterior & Interior, Architecture, Landscapes, Vehicles, Ships, etc., will hook-up and are consistent in design.

5. All route sheets are checked to see that the Backgrounds are numbered correctly and Correspond to the Proper Scenes, all "lost" Backgrounds are accounted for before a Show leaves the Dept.

There are a few simple procedures that, if followed by the Layout Artist, would be a big help to the Background Graphics Dept.

1. NEVER mark a BG., "Paint for day and night". If a BG. is used in an early scene for night, it should be marked with an X after the number. If it is then used later for a day scene please put a Duplicate of the night BG. in the scene with the New scene No. and write "repaint for day". These should be given to us by the Layout Supervisor as a New BG.

2. All BG.'s should be labeled with the proper numbers in the UPPER RIGHT CORNER.

3. All BG.'s should have the location written on top. This will help us "hook-up" properly and would make some of the close-ups more Comprehensible.

4. If there is any question about how to set up a Bike BG., please ask your Supervisor or anyone in Background.

5. All BG. rough drawings should be Blue Sketched by the Layout Artist so that BG. Dept. will understand where the Action takes place. This is also important to avoid awkward tangents such as trees growing out of Characters Heads etc..

6. If there are seperate elements,for example OL's, OL/UL's, OL's,etc., for the background, it would be best if these were drawn on separate paper, because at times the Background is called for use without the other elements.

7. Please DO NOT USE A HEAVY INK LINE or too much BLACK SHADING on the ROUGH BACKGROUNDS. It's almost impossible to see the line or follow the structure of the drawing if this is done. Pencil of any color blue, sepia, or green is okay.

CAMERA INFORMATION SECTION

STANDARD ANIMATION CAMERA

CAMERA CAPABILITIES

1. The Camera has four moveable bars: Top, Top Aux, Bottom and Bottom Aux. bars.

When using both top bar and top aux. bar, the metal pegs on the top bar have to be removed for the cels from the top aux. bar, to lay over the top bar. Therefore, only held elements (taped to the bar) can be used when using animation on the top aux. bar.
The same applies to the bottom bar and bottom aux. bar. All four bars may move at the same time, but the top and bottom bars can only take held elements: BG's, OL's, UL's and HC's(Held Cels) when using animation on the auxillary bars.
The BG's can also be taped to the Camera table. OL's can be taped to the platten. DO NOT tape an OL to the platten when there is an E/W TRUCK involved. In this case the platten remains stationary and the Camera table moves E/W for Truck resulting in a sliding OL on film.

2. The Camera also has Top and Bottom flip pegs that are stationary. Two non-animating elements can Pan on Top and Top Aux. bars while using animation at the center on the Top flip pegs.
The same information applies to the bottom bars and bottom flip pegs.

3. When Wiping from one scene to another, there CAN NOT be more than 3 Fields difference between the two scenes. (12 FC to 9FC). There is no Field limitation when X-Dissolving between scenes.

4. There should not be more than 7 levels exposed in a scene.

5. Try to put as much animation as possible on the Bottom bars. It is difficult for the Cameraman to reach under the platten to work animation on the Top bar set-ups.

6. If there are any questions involving Camera Mechanics, please feel free to go to the Camera Department and talk to the Cameraman.

Camera

Light

Top pegs

Platen

Light

Bottom pegs

Camera speed control

TOP LIP PEGS

PLATEN ARM

TOP AUX. BAR

TOP AUX. BAR ATTACHMENT

TOP BAR

BOT. BAR

BOT. AUX. BAR

BOT. LIP PEGS

ACME COUNTERS.
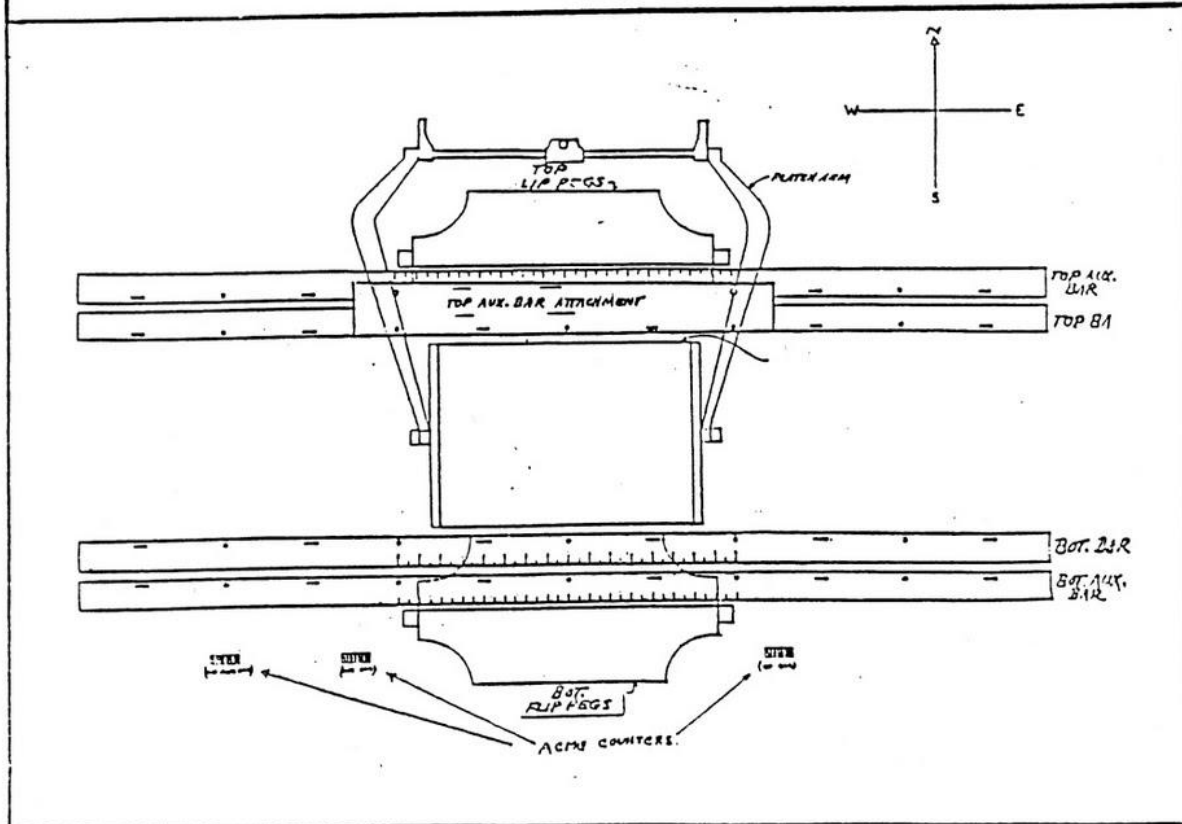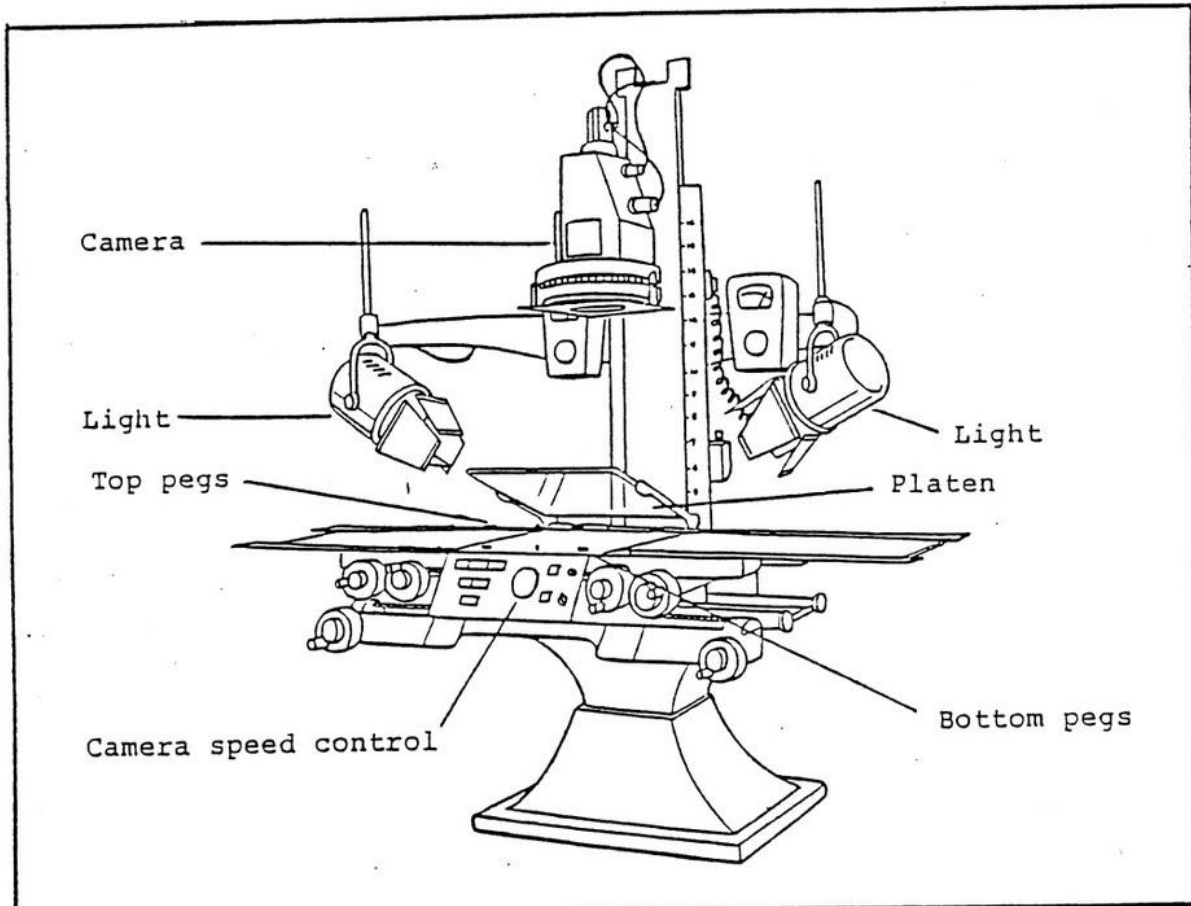
THE OXBERRY CAMERA

Basically all the moves on the Oxberry are the same as our standard Camera stands. The Oxberry is a Four Bar Camera Stand with a Vertical Range from a 2 Field to a 30 Field size.

There are some other features that the Oxberry has that the standard stands don't have, such as a wider range of Camera motor speeds, a capping shutter an automatic fade/dissolve shutter and a better bottom lightunit. The Oxberry has some other features that make it a very versatile stand: AERIAL IMAGE; REAR PROJECTION; MULTI-PLANE and CINETRON SYSTEM.

AERIAL IMAGE:

The purpose of Aerial Image is to combine a projected background element (a print of previously shot and developed scene) and a Top Lit Animation without the use of traveling mattes (bi-pack) in one pass. There are some limitations when using Aerial Image.

They are: 1. Locked at 10 Field size.

2. No movement except the peg track.

3. All movement must be made in the Background element or the top Lit Animation.

Background elements must be made for both Aerial Images and Rear Projection shots. Registered prints with Bell & Howell perforations are a must.

REAR PROJECTION

Rear Projection shots are made like the Aerial Image shots with a few differences. With Rear Projection the Background Element Image can be placed almost anywhere in the Top Lit Background Area. Some loss of clarity will occur due to the Rear Projection Screen. Movement or Zooms on the Artwork can be done when using Rear Projection.

MULTI-PLANE:

Our particular Multi-Plane set-up will consist of two additional planes besides the Camera bed for a total of three planes. These planes will have a maximum distance of 16 Field at the middle level and 7 Field at the top level.

There will be some adjustability, but that will be determined by the Lighting Requirements. At this time the exact amount of adjustability has not been determined.
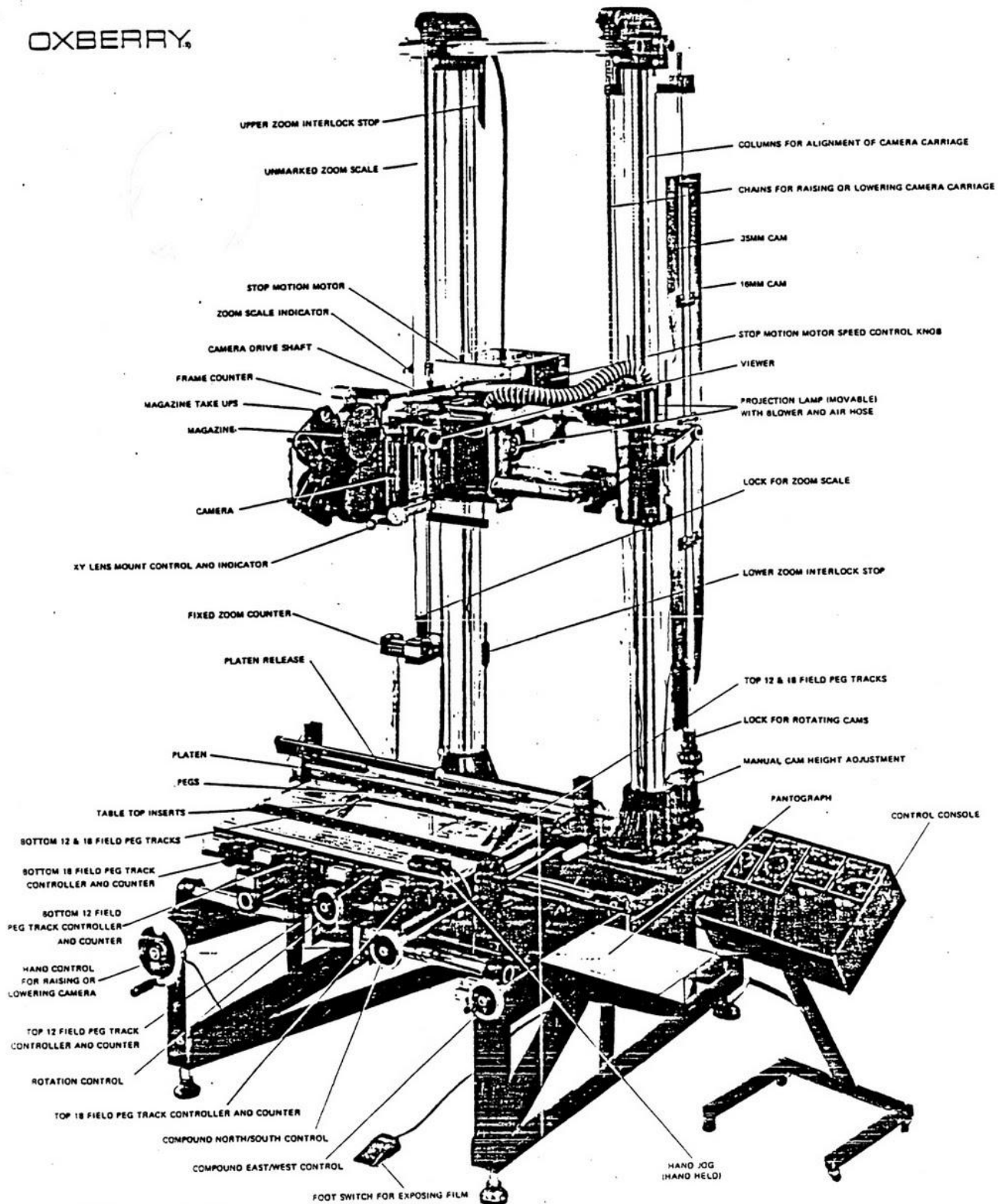
OXBERRY.

UPPER ZOOM INTERLOCK STOP

UNMARKED ZOOM SCALE

COLUMNS FOR ALIGNMENT OF CAMERA CARRIAGE

CHAINS FOR RAISING OR LOWERING CAMERA CARRIAGE

35MM CAM

16MM CAM

STOP MOTION MOTOR

ZOOM SCALE INDICATOR

CAMERA DRIVE SHAFT

FRAME COUNTER

MAGAZINE TAKE UPS

MAGAZINE

STOP MOTION MOTOR SPEED CONTROL KNOB

VIEWER

PROJECTION LAMP (MOVABLE)
WITH BLOWER AND AIR HOSE

CAMERA

XY LENS MOUNT CONTROL AND INDICATOR

LOCK FOR ZOOM SCALE

LOWER ZOOM INTERLOCK STOP

FIXED ZOOM COUNTER

PLATEN RELEASE

TOP 12 & 18 FIELD PEG TRACKS

LOCK FOR ROTATING CAMS

MANUAL CAM HEIGHT ADJUSTMENT

PLATEN

PEGS

TABLE TOP INSERTS

BOTTOM 12 & 18 FIELD PEG TRACKS

BOTTOM 18 FIELD PEG TRACK
CONTROLLER AND COUNTER

BOTTOM 12 FIELD
PEG TRACK CONTROLLER
AND COUNTER

HAND CONTROL
FOR RAISING OR
LOWERING CAMERA

TOP 12 FIELD PEG TRACK
CONTROLLER AND COUNTER

ROTATION CONTROL

TOP 18 FIELD PEG TRACK CONTROLLER AND COUNTER

COMPOUND NORTH/SOUTH CONTROL

COMPOUND EAST/WEST CONTROL

FOOT SWITCH FOR EXPOSING FILM

PANTOGRAPH

CONTROL CONSOLE

HAND JOG
(HAND HELD)

Figure 1 5442 00 Master Series Animation Stand.
The shadow board supplied as standard equipment
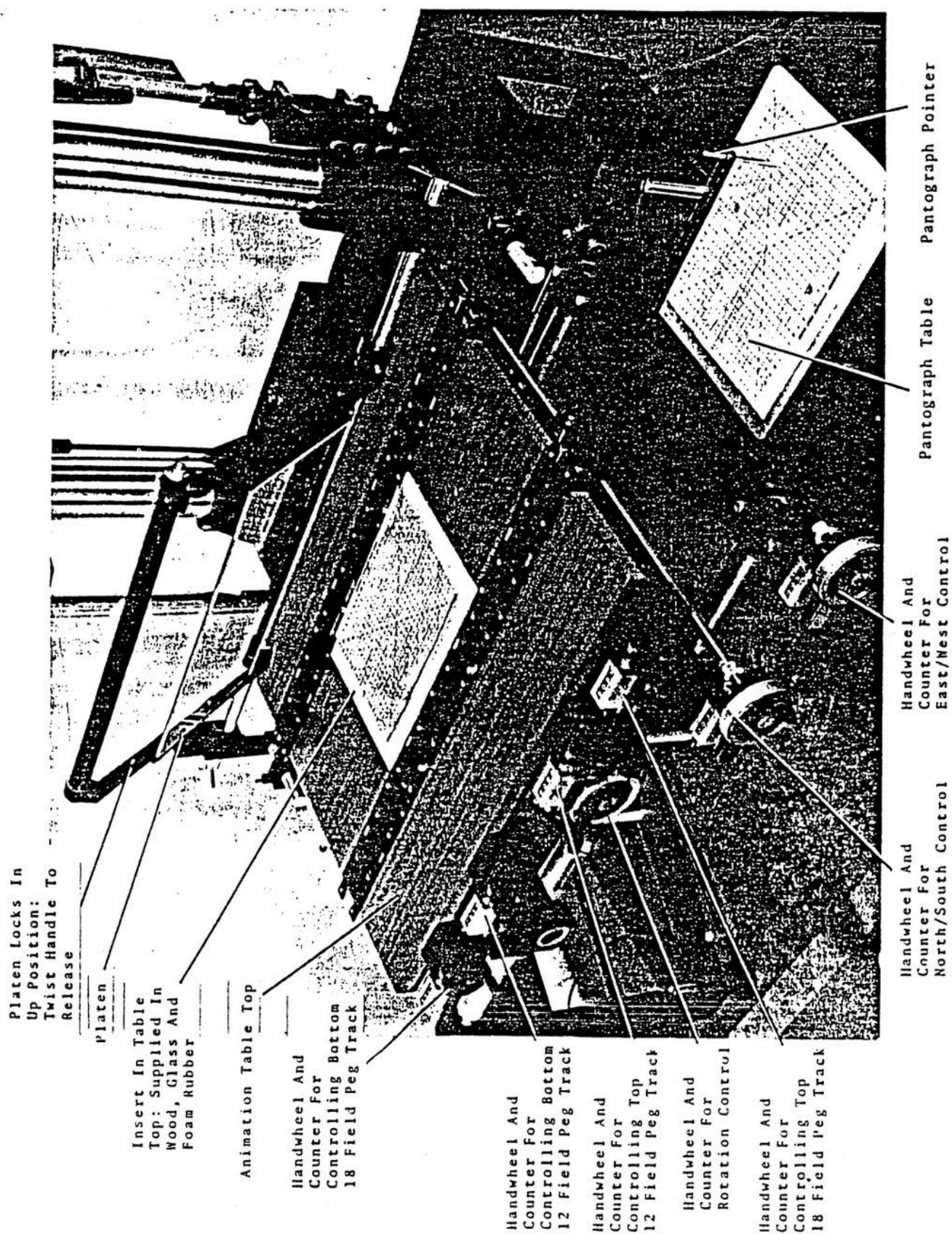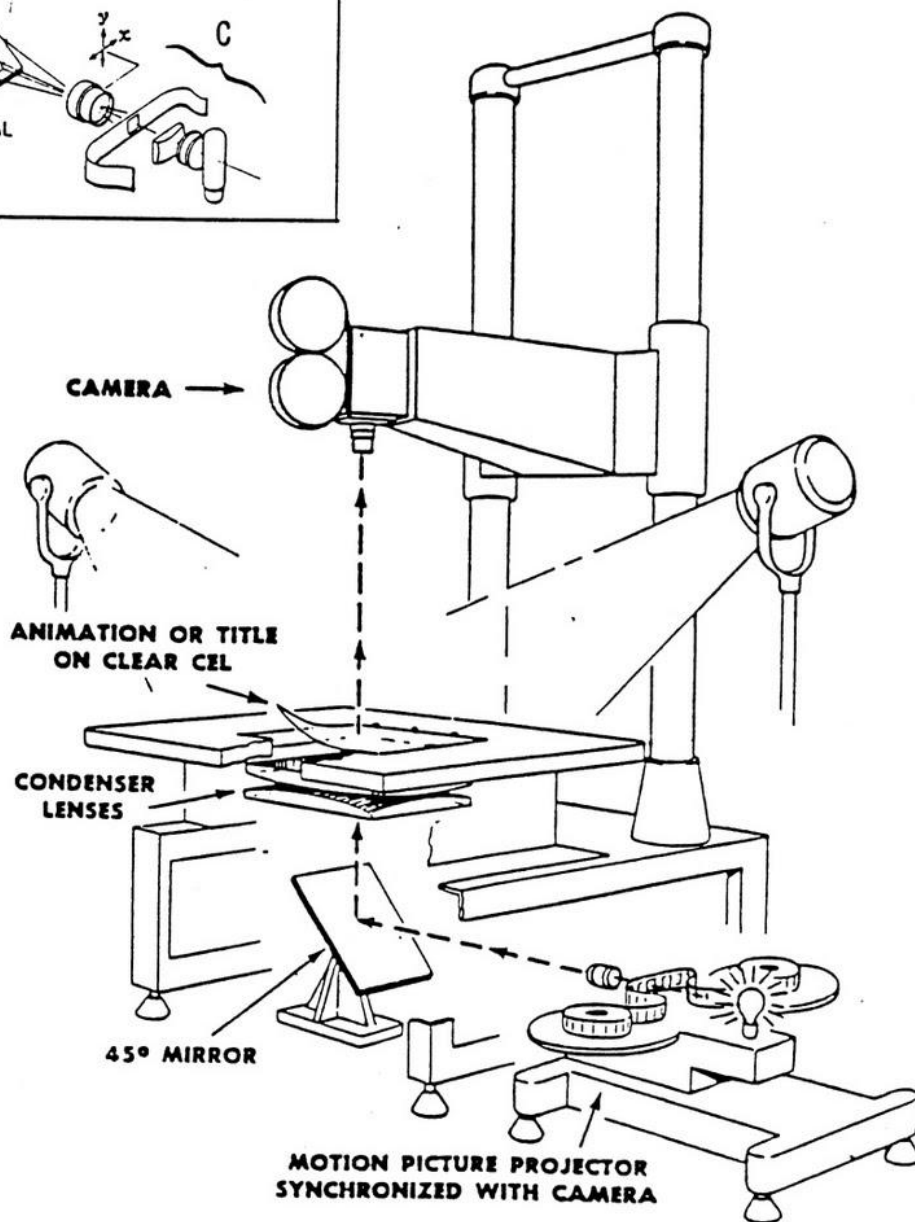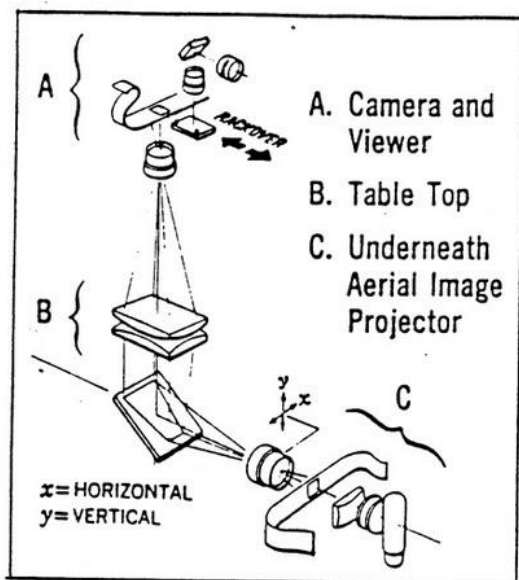with this unit has been removed for clarity.

Platen Locks In
Up Position:
Twist Handle To
Release

Platen

Insert In Table
Top: Supplied In
Wood, Glass And
Foam Rubber

Animation Table Top

Handwheel And
Counter For
Controlling Bottom
18 Field Peg Track

Handwheel And
Counter For
Controlling Top
12 Field Peg Track

Handwheel And
Counter For
Rotation Control

Handwheel And
Counter For
Controlling Top
18 Field Peg Track

Handwheel And
Counter For
North/South Control

Handwheel And
Counter For
East/West Control

Pantograph Table

Pantograph Pointer

Figure 7. Compound and controls.

A. Camera and Viewer

B. Table Top

C. Underneath Aerial Image Projector

x = HORIZONTAL
y = VERTICAL

CAMERA →

ANIMATION OR TITLE ON CLEAR CEL

CONDENSER LENSES

45° MIRROR

MOTION PICTURE PROJECTOR SYNCHRONIZED WITH CAMERA

ANIMATION STAND WITH AERIAL IMAGE UNIT

LAYOUT MANUAL / GARY L. HOFFMAN

Edited & Coordinated   /   Monica Stroud & Celeste Hammond